

MSI-LSI MEMORY D.A.T.A.BOOK

CATEGORIES INCLUDE:

- SHIFT REGISTERS
- READ-WRITE MEMORIES
- CHARACTER GENERATORS
- READ-ONLY MEMORIES
- CODE CONVERTERS
- CONTENT ADDRESSABLE MEMORIES

SPRING 1975

8th EDITION

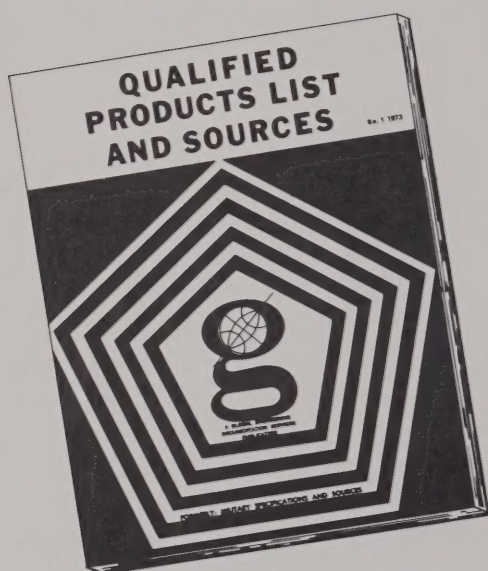
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DIGITAL INTEGRATED CIRCUITS: More than 16,000 type numbers from 80 worldwide manufacturers are tabulated by characteristic in standardized format for easy reference. Includes logic and outline drawings, 800 military types with QPL manufacturers and applicable MIL Spec references. Now also contains the two best-known replacement series. Subscription includes two (2) semi-annual editions.

DISCONTINUED INTEGRATED CIRCUITS: The only all-inclusive source of data on ICs that have become obsolete since 1965. Follows format of current IC D.A.T.A.BOOKS to facilitate substitution and replacement. Contains over 14,600 types, including major series no longer manufactured. Identifies all ex-manufacturers and is updated with each annual edition.

SEMICONDUCTOR APPLICATION NOTES: Offers easy access to the application notes on over 3,800 circuits from 60 manufacturers. Notes are tabulated in Analog and Digital circuit categories, plus Discrete and IC Device Categories, with sub-categories providing application details. Principal device types referenced for each circuit application. Subscribers can order notes published by these manufacturers from a single source. . . D.A.T.A. . . by using the "Request Cards" bound in the book. Listing of notes revised semi-annually.

MICROWAVE TUBES: Indexes 4,500 types from 34 manufacturers for military and commercial application. Includes BWTs, TWTs, Crossed-Field Amplifiers, Noise Generators, Helitrons, Klystrons, Magnetrons and Platinotrons, TRs and ATRs. Arranged in order of tube type, center frequency, power output and type number. Identifies QPL manufacturers and military specifications. Now includes 2,300 discontinued types. Published semi-annually.

RELAYS: Makes it possible to review, compare and select from the more than 8,100 devices approximately one (1) cubic inch or less in volume and compatible with semiconductor packaging requirements. Covers: Miniature Armature — Subminiature Armature — Dry Reed — Mercury-wetted Reed — Solid State — Hybrid and Time-delay relays. Shows pin connections and dimensioned outlines. Updated and published annually.

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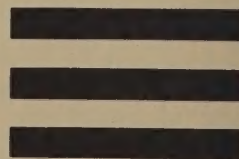
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Purpose

This D.A.T.A.BOOK is designed to report comprehensively on what is presently being produced throughout the free world in the field of MSI—LSI Memories. While a book such as this can not provide 100% of the information you might need, its primary aims are those of facilitating the selection of types suitable to your technical requirements, and of directing you to the sources of their manufacture.

Technical Data Acquisition

D.A.T.A. acquires and processes the information presented in this D.A.T.A.BOOK with the cooperation of the participating manufacturers who supply us with their latest technical information. Manufacturers are not charged for the listing of their products.

JEDEC Outlines

At the time this D.A.T.A.BOOK was prepared, there were no JEDEC type numbers; however, some of the devices have the JEDEC-designated MO— and TO— outlines which are included as applicable in the Outline Drawing Section.

Military Type Numbers

The electrical, mechanical and environmental information tabulated for the military types in the technical sections is derived directly from the applicable military specifications and standards. The source information, showing the particular manufacturers qualified for each type, is derived from the QPL (Qualified Parts List) associated with the governing specification, or from the manufacturers Qualification Test Letters.

Substitute Types And Compatibility

This D.A.T.A.BOOK can not truly claim to be an interchangeability chart; however, because of the sequencing arrangement of selected characteristics in the technical sections, types with the same or similar characteristics are grouped together. For purposes of replacement, this means of thorough, convenient technical comparison should prove superior to, and safer than, a mere listing of possible substitute type numbers.

Price And Availability

Because of the rapidly-changing and complex nature of this field, current price and delivery information should be obtained direct from the manufacturers. The list of manufacturers and the Local Offices Section in back of the book will assist you in this.

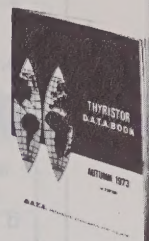
Manufacturers' Specifications

This book includes currently-manufactured devices with their major characteristics, drawings and manufacturers. Every effort is made to ensure the accuracy of the entries herein; however, the publisher can not be held responsible nor guarantee against the possibility of error or omission. Only the manufacturers or their authorized representatives can provide you with complete technical details.

INDEX TO CONTENTS OF THE D.A.T.A.BOOKS

DO YOU HAVE ALL THE D.A.T.A.BOOKS YOU NEED TO DO THE JOB?
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SEMICONDUCTOR SERIES



DI - SEMICON. DIODE

DG - DIGITAL IC

LN - LINEAR IC

SM - MSI-LSI MEMORY

TR - TRANSISTOR

TY - THYRISTOR

TYPE OF DEVICE	D.A.T.A.BOOK					
	DI	DG	LN	SM	TR	TY
Adders						
Analog			x			
Full		x				
Half		x				
AFC Circuits			x			
AM/FM Circuits			x			
Amplifiers						
AGC Circuits			x			
Audio			x			
Current			x			
Differential			x			
IF			x			
Logarithmic			x			
Logic		x				
Operational			x			
Reference			x			
RF			x			
Sense		x	x			
Squaring			x			
Wideband			x			
Character Generators				x		
Comparators						
Binary		x				
Voltage			x			
Converters						
Analog-to-Digital		x				
Code				x		
Digital-to-Analog		x				
Frequency-to-Voltage			x			
Interface		x				
Polarity (Digital)		x				
Frequency			x			
Counters		x				
Decoders		x				
Demultiplexers		x	x			
Diode Arrays	x	x	x			
Diodes						
Current Limiting	x					
General Purpose	x					
Light-Emitting (LEDs)	x					
Log Conversion	x					
Matched Configuration	x					
Microwave Mixer	x					
Microwave Switch	x					
Microwave Video Detector	x					
Freq. Mult. & Harmonic Gen.	x					
Oscillator	x					
Photo (diode)	x					
Radiation Detector	x					
Random/White Noise	x					
Rectifier	x					
Shotky Barrier	x					
Silicon Reference	x					
Solar Cell	x					
Special-Purpose	x					
Step Recovery	x					

TYPE OF DEVICE	D.A.T.A.BOOK					
	DI	DG	LN	SM	TR	TY
Diodes (Cont'd)						
Switching	x					
Tunnel	x					
UHF Detector	x					
UHF Mixer	x					
Varactor	x					
Varistor	x					
Voltage-Variable Capacitor	x					
Voltage Transient Suppressor	x					
Zener	x					
Dividers, Binary		x				
Drivers						
Clock		x				
Incandescent Lamp		x				
Line		x				
Neon Lamp		x				
Relay		x				
Switch		x				
FETs						
N-Channel					x	
P-Channel					x	
FET Switches		x				
Flip-Flops		x				
Gate Expanders		x				
Gates						
AND		x				
Exclusive-NOR		x				
Exclusive-OR		x				
NAND		x				
NOR		x				
OR		x				
Gate Switches, Analog		x				
Generators, Function						
Dividers, Analog			x			
Multipliers, Analog			x			
Sine/Cosine			x			
Inverters		x				
Memories						
CAMS (Content Addressable)				x		
RAMS (Random Access)				x		
ROMS (Read Only)				x		
Mixers			x			
Modulators/Demodulators			x			
Multiplexers		x	x			
Multivibrators		x				
Oscillators						
Sine Wave			x			
VCO Xtal			x			
Phase-Control Circuit			x			
Phase-Locked Loops			x			
Power Supplies						
AC to DC			x			
DC to AC (Inverters)			x			
DC to DC			x			
Receivers, Line		x				

TYPE OF DEVICE	D.A.T.A.BOOK					
	DI	DG	LN	SM	TR	TY
Registers						
Shift				x		
Storage		x		x		
Regulator, Voltage			x			
Ring Modulator			x			
Selectors						
Data		x				
Head		x				
Mode		x				
Special Circuits (Digital)						
Arithmetic		x				
Miscellaneous		x				
Parity		x				
Signal Processing		x				
Stereo Circuits			x			
Temperature-Compensated Voltage Stabilizer			x			
Thyristors						
Diacs						x
Gate Turn-Off Devices						x
Light Activated Switches						x
N-Gate Triodes						x
Reverse Conducting Triodes						x
SCRs						x
Shockley Diodes						x
Sil. Asymmetrical Switches						x
Sil. Bilateral Switches						x
Sil. Controlled Switches						x
Sil. Unidirectional Switches						x
Triacs						x
Time Delays		x				
Transistor Arrays		x	x		x	
Transistors						
Avalanche Mode					x	
Bi-Directional					x	
Chips					x	
Choppers					x	
Complementary Symmetry					x	
Composite					x	
Darlington					x	
General-Purpose					x	
Germanium					x	
High-Power					x	
Low-Power					x	
Matched-Pairs					x	
Microwave					x	
NPN					x	
Phototransistors					x	
PNP					x	
Pressure-Sensitive					x	
Radiation-Resistant					x	
Silicon					x	
Unijunction					x	
Triggers, Schmitt		x				
TV Circuits			x			

HOW TO MAKE MAXIMUM USE OF THIS D.A.T.A.BOOK

To make maximum use of this D.A.T.A.BOOK, select the particular known-unknown situation below that defines your problem, and follow the instructions as indicated.

1	<p>KNOWN: Electrical and Mechanical Requirements UNKNOWN: Suitable Type Numbers</p> <ol style="list-style-type: none"> Turn to the Table of Contents (first page) and select the technical data section corresponding to the subject device type. Turn to any page in the selected section. Note the sequencing parameters (those characteristics for which the data is arranged in order) indicated at the top corner of the page. Using the sequencing parameters, locate the type numbers that are in general agreement with your requirements. (Because of the sequencing arrangement, these types will appear together, in groups and sub-groups.) From among these, select the one or ones most suitable. To identify the manufacturer of the selected type number(s), follow the instructions in Block 2 below.
2	<p>KNOWN: Type Number UNKNOWN: Manufacturer(s), Address, Local Offices</p> <ol style="list-style-type: none"> Turn to Type No. Cross-Index (Section 1) and locate the subject type number. (Refer to 'HOW TYPE NUMBERS ARE SEQUENCED' in front of the book as a guide for this.) Note the 3- or 4-letter manufacturer's code(s), e.g., TII, GESY indicated for each of the subject types. Use the listing of 'MANUFACTURERS & THEIR CODES' in back of the book to identify the codes. (Note: Local Offices for manufacturers shown in bold print on this listing are indicated in a special section in back of the book.)
3	<p>KNOWN: Type Number UNKNOWN: Its Electrical Characteristics, And/Or Logic And Outline Drawings</p> <ol style="list-style-type: none"> Turn to Type No. Cross-Index and locate the subject type number. Note the page and line number, e.g., 70-104, alongside the type number. Locate the type number as noted, in the technical sections. (Note: Along with the electrical and performance characteristics listed for each type number are references to the logic/block and outline drawings, located in Section 9 and Section 10, respectively.)
4	<p>KNOWN: Type Number UNKNOWN: Equivalent Types for Replacement</p> <ol style="list-style-type: none"> Follow the instructions in Block 3 above. Survey the type numbers surrounding the subject number to determine the suitable alternatives.
5	<p>KNOWN: Military Requirements UNKNOWN: Suitable Type Number(s)</p> <ol style="list-style-type: none"> Scan the military type numbers in Section 8 (TYPES WITH MILITARY SPECIFICATIONS) to determine the military identifying prefix(es); e.g., M38510. Follow the instructions in Block 1, to determine the general type numbers that meet the military requirements. From among these, select the military types by means of the identifying prefix. To identify the manufacturers, follow the instructions in Block 6.
6	<p>KNOWN: Military Type Number UNKNOWN: Qualified Manufacturers And/Or Applicable Military Standard Or Specification</p> <ol style="list-style-type: none"> Turn to Section 8 (TYPES WITH U.S. MILITARY SPECIFICATIONS), and locate the subject type number. (Type numbers are arranged in alpha-numeric order, by individual specifications as indicated in the column headings.) Note the manufacturer's code(s) listed alongside the type number. Follow the instructions in Block 1 to identify the manufacturers.
7	<p>KNOWN: Type Number Not Included In Book UNKNOWN: What Happened To It?</p> <ol style="list-style-type: none"> Consult D.A.T.A.BOOK OF DISCONTINUED INTEGRATED CIRCUITS.

USE OF POWERS OF TEN MULTIPLIERS AND SYMBOLS & CODES IN THE TECHNICAL SECTIONS

To present a maximum amount of information in a minimum amount of space, use is made in this book of the following data modifiers:

POWERS-OF-TEN MULTIPLIERS

The powers-of-ten multipliers shown below are used in numeric columns when the value being entered is many times greater or smaller than the units of measure indicated in the column heading. Usually, the latter are the so-called 'basic' units; such as V (volts), A (amperes) and s (seconds). The multipliers and an explanation of their use are given below:

MULTIPLIERS									EXPLANATION		
PREFIXES & SYMBOLS			Recommended by International Committee on Weights and Measures Adopted by National Bureau of Standards						Value of Data To Be Entered	Basic Unit In Column Heading	Actual Entry
Indicating Powers of Ten											
Power	Prefix	Symbol	Power	Prefix	Symbol	Power	Prefix	Symbol			
10 ¹²	tera	T	10	deka	da	10 ⁻⁹	nano	n	3 milliamperes	A (amperes)	3.0m
10 ⁹	giga	G	10 ⁻¹	deci	d	10 ⁻¹²	pico	p	9 megahms	Ω (ohms)	9.0M
10 ⁶	mega	M	10 ⁻²	centi	c	10 ⁻¹⁵	femto	f	0.5 volt	V (volts)	500m *
10 ³	kilo	k	10 ⁻³	milli	m	10 ⁻¹⁸	atto	a	10 amperes	A (amperes)	10
10 ²	hecto	h	10 ⁻⁶	micro	μ						
									* May also be written as 0.5, with no multiplier		

SYMBOLS & CODES

Symbols — Symbols such as #, ^, and \$ are used in all columns, numeric or otherwise, whenever the data entries differ in some way from the entity defined in the column heading. For instance, if a given heading specifies Max. Power (in Watts) and the numeric value being entered for a given type represents the minimum power instead, the variance is denoted by the appearance of a special symbol alongside the numeric entry.

NOTE: The symbols and codes used herein are explained on the cards in back of the book.

Codes — Codes are used in some columns as means to abbreviate the data being entered. The codes may be alphabetic (A,B,C, etc.) numeric (1,2,3, etc.) or some combination of both.

HOW TYPE NUMBERS ARE SEQUENCED IN THE TYPE NUMBER CROSS-INDEX

Sequencing of type numbers in the Type Number Cross-Index is governed by the following rules:

		EXAMPLES
Rules:	1) Type numbers are listed in numeric-alphabetic sequence; i.e., type numbers beginning with a number (decimal, fraction, or whole) precede type numbers beginning with a letter.	13A01 143 1202 A147 AN127 B2000
	2) Decimals and fractions precede whole numbers. An equivalent decimal precedes the fraction when the remainder of type number is identical.	.25Z150 1/4Z150 3/4M12Z 1T3
	3) Zeros are ignored in sequencing except when the zero is the only basis for distinguishing one type number from another. In this case the type number containing the zero is listed first.	0112 112 0113 00115 AP01 AP1 AP02
	4) Number and/or letter groupings preceding hyphens or slashes are the controlling factors in sequencing. The hyphens and slashes themselves precede any identically positioned letters also having the same beginning number/letter groupings.	66-0706 66M1 70/10 70A9


The arrangement of types in the technical sections is keyed to a set of special characteristics selected for their importance from among the general group of characteristics tabulated in each section. These selected characteristics, or sequencing parameters, differ from one section to another, and are identified at the top corner of each page, as shown in the sample below.


MAJOR CHARACTERISTICS										SEQUENCING PARAMETERS						
2. READ-WRITE MEMORIES (RAMS)										IN ORDER OF (1)No.WORDS(2)No.BITS/WORD (3)MODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.						
LINE No.	TYPE No.	ORGANIZATION		3 STRUCTURE D CODE	5 MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT (A)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE - +	DRAWINGS	
		1 No. WORDS	2 BITS PER WORD					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)				LOGIC/ BLOCK	OUTLINE


The different types within a section are first arranged in ascending numeric (or alphabetic) order of the first such parameter. Groups of types having a common value for the first parameter are then arranged in ascending order of the second parameter. This process continues for each parameter in turn, up to and including the last parameter which, in every instance, is the type number itself. The final arrangement, by type number, is done in accordance with the sequencing of type numbers in the cross-index, as explained on the preceding page.


A simplified model of the arrangement as described is shown below.


4 Type Number	Characteristics			
	1 A	2 B	C	3 D
A13	100		325	
A4	100		1000	20
A9	100	A	20	25
A10	100	A	200	25
A3	100	B	40	15
A1	100	C	80	10
A8	100	C	900	15
A7	100	D	35	30
A11	110	A	60	25
A2	120	A	300	15
A5	120	B	150	20
A6	120	B	200	20
A12	120	B	475	25


 Last
Seq.
Par.


 1st
Seq.
Par.


 2nd
Seq.
Par.


 (Not
Seq.)


 3rd
Seq.
Par.

Note that the absence of an entry for any sequencing parameter is regarded as a zero, and precedes any actual entries in the sequencing.

The MSI/LSI Memory industry is still in its infancy. It has not as yet matured to the point whereby standardized data presentation or standardized definitions have evolved. In general the data supplied by one manufacturer is difficult, if not impossible, to compare with that of another manufacturer.

It is for the above reasons that D.A.T.A. has prepared all manufacturers data in D.A.T.A.'s "Standardized Format". The "Standardized Format" presents a given set of device characteristics in a sequential order of either ascending or descending values. This orderly presentation now allows the reader to select one or more MSI/LSI Memory circuits from a group of devices which satisfies the reader's specification requirements. The "Standardized Format" presentation permits the reader to analyze, select and trade between groups of devices available from all known manufacturers.

The characteristics for MSI/LSI Memory presented in the D.A.T.A.BOOK are generally specified under "worst case" conditions. Thus, the minimum or maximum values (whichever is applicable) is recorded instead of the typical value. When only the typical value is available, it is accompanied by a symbol to alert the reader to exercise caution in interpreting the data.

What follows is, from D.A.T.A.'s point of view, the technical reasoning and guidelines used in the preparation of the technical sections of the MSI/LSI Memory D.A.T.A.BOOK. We would certainly welcome your comment's about this, or any other D.A.T.A.BOOK.

- Access Time (Sect. 2,3,4,5,6) — the speed at which a device can read-out information from its memory. It is defined as the time difference between the addressing of the memory and the appearance of a valid output.
- Clock Freq. (Sect 2,3,7) — is given for dynamic devices for the reason explained under "modes". For static devices it is assumed to be dc. In Section 3 it is specified in the Description column when applicable.
- Conversion Code: "From" and "To" (Sect. 6)— indicates the input and output codes of the device. Those devices having reversible code capability are listed twice, once for each direction change.
- Input Logic Levels (All sections) — the max. input voltage at which the input is in the "off" or "0" state, and the min. input voltage at which the input is in the "on" or "1" state. The difference between the two input levels indicates the relative noise immunity of the device. For cases where the input logic levels are not specified, the output levels are, and a symbol is used to indicate this condition.

The input logic levels apply to the address inputs for the "memory" devices in Sections 2 to 6, and to the data inputs for shift registers in Section 7. If the device can be adjusted for compatibility with both MOS and Bipolar systems, then Bipolar levels are specified in the column. A symbol is used to indicate this condition.

- Logic/Block Drawings (All sections) — separated and coded according to functional classification, i.e., RAM's, ROM's, etc. The block drawing was considered more descriptive than the circuit schematic in showing the overall operation of the device from a system aspect.
- Mode: Static or Dynamic (Sect. 2 and 5) — represents the basic storage method of the device. Static types use flip-flops that retain their state indefinitely as long as the supply voltage is maintained. Their frequency of operation extends down to dc. Dynamic types use the inherent interelectrode capacitance of MOS devices to store a charge which determines the state of a memory bit. Since this charge cannot be held indefinitely, these types must be refreshed periodically; this restricts the lower limit of their operating frequency.
- No. of Bits Per Character (Sect. 4) — the number of bits in the display matrix, obtained by multiplying the number of rows in the display matrix times the number of columns. The number provides a measure of the resolution of the display.

- No. of Bits Per Register (Sect. 7) — the bit capacity of the individual registers which can be used separately in the device. If the number of bits varies for the different registers, then the highest capacity is specified, and the user is referred to the logic/block drawing for more specific information.
- No. of Characters (Sect. 4) — the character capacity of the device. For a standard code with a given number of characters such as ASCII, the input code for any character is fixed. Some devices must be used in pairs to supply the complete code, in which case a symbol is used in the technical section column.
- No. of Code Inputs and Outputs (Sect. 6) — determines the code input and output character capacity.
- No. of Outputs (Sect. 4) — indicates the number of outputs to the display. For row-and-column-scanning devices, the array of the display matrix is easily determined by dividing this number into the number of bits per character.
- No. of Registers (Sect. 7) — together with the number of bits/register determine the total bit capacity of the device. Some registers contain inputs to intermediate stages; this is noted with a symbol.
- Oper. Mode and Prog. Code (Sect. 3) — describes: 1) the mode of operation of the device (dynamic or static); and 2) the type of program available (standard or custom). If a standard program is indicated in the Code, it is defined in the technical section Description column.
- Operating Power Diss. (All sections) — the “worst-case” power dissipation of the device under operating conditions. A manufacturer may indicate the “quiescent” or the “absolute maximum” power dissipations; these values vary significantly from “worst case”. For this reason the user is cautioned not to use the quiescent or absolute maximum power dissipation in comparing the operating power dissipation of different devices. All conditions other than “worst case” are distinguished by the use of a symbol following the value.
- Oper. Temp. Range Code (All sections) — the temperature range over which the manufacturer indicates that the device will operate. Unless otherwise noted by a symbol in the appropriate column or columns, all specified characteristics apply over the operating temperature range of the device.
- Organization: No. of Words and No. Bits/Word (Sect. 2,3,5) — represents the capacity of the memory. By connecting the outputs of two or more devices in parallel, the total number of words may be expanded; similarly, by connecting the address inputs in parallel, the number of bits/word can be expanded.
- Outline Drawings (All sections) — separated and coded in the Outline Drawing Section according to package configuration. In this way the user can easily determine the types of package and the associated dimensions available for memory circuits.
- Output Sink Current (All sections) — negative current that the output of a device can sink at a specified “0” level. This is especially important in determining a device’s compatibility to Bipolar circuits. Where the sink current is not specified or not applicable, an alternate output current characteristic is specified, and is identified by an appropriate symbol.
- Propagation Delay (Sect. 7) — the time required to shift information one bit through the register. It is defined as the time between the initiating clock pulse at the input of a storage element, to the occurrence of a valid output from the same element.
- Rated Power Supply Span (All sections) — the range of positive and negative supply voltages at which the characteristics are specified by the manufacturer. If more than one negative or positive voltage is necessary for the operation of the device, the maximum negative or positive value is specified. The logic/block drawing should then be consulted for the actual voltages required to operate the device.

D.A.T.A.'S APPROACH TO MSI/LSI MEMORY SPECIFICATIONS (Cont'd)

- Search Time (Sect. 5) — the time required to match information in the memory once a search is initiated. It is defined as the time difference between the enabling of the associate control input and the receiving of a mismatch or match condition at the output.
- Structure Code (All sections) — relates the device to the two main developing semiconductor technologies for memory devices: Bipolar and MOS. Presently, the two technologies are characterised by distinctive advantages and disadvantages in comparison to each other. Generally, Bipolar devices are faster, but MOS devices dissipate less power. A third technology, thin film amorphous, features non-volatile and non-destructive crystalline memory bits.
- Use Code (Sect. 4) — describes 1) the mode of operation of the device (dynamic or static); 2) the type of code stored in the device; and 3) the type of display used with the device. Knowing these three characteristics greatly narrows the search for a character generator.
- Use Code (Sect. 7) — describes 1) the type (serial or parallel) of input and output terminals available on the device; and 2) the operating mode of the device (static or dynamic). For devices that operate in both the serial and parallel modes on the input and/or output, the parallel capability is specified, since parallel devices can operate in both the serial and parallel modes.
- Worst Case Operating Frequency (Sect. 7) — the highest guaranteed operating frequency of the device. Alternatively, the data-rate frequency is specified in the case where it differs from the clock frequency.
- Write-Cycle Time (Sect. 2,5) — the time required to write a data-word into a given memory address. The max. read-write time is similarly defined, except that it includes both the read and write portions of the cycle. The min. write-pulse width is specified in the column when the cycle times are not given. It is defined as the min. pulse width required at the write input to insure that valid information is stored at the memory address.

NOTES

We feel you may have some useful comments which deserve consideration for future editions.

1. TYPE No. CROSS INDEX

				IN TYPE NUMBER SEQUENCE			
TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS	Pg&Line	TYPE No.	MFRS
82S23	♦SIC	15- 67	2526N#1	♦SIC	23- 72	6205J	♦MMI
82S123	♦SIC	15- 68	2526N#2	♦SIC	21- 51	6205N	♦MMI
93H00DC	♦FSC	31- 60	2527V	♦SIC	44- 38	6206D	♦MMI
93H00DM	♦FSC	31- 61	2530I	♦SIC	21- 26	6206J	♦MMI
93H00FC	♦FSC	31- 62	2530N	♦SIC	21- 27	6206N	♦MMI
93H00FM	♦FSC	31- 63	2532B	♦SIC	43- 18	6210D	♦MMI
93H72DC	♦FSC	31- 64	2533V	♦SIC	45-108	6210J	♦MMI
93H72DM	♦FSC	31- 65	2580I	♦SIC	22- 37	6210N	♦MMI
93H72FC	♦FSC	31- 66	2580N	♦SIC	22- 38	6225D	♦MMI
93H72FM	♦FSC	31- 67	2602-1B	♦SIC	14- 35	6230D	♦MMI
93L00DC	♦FSC	28- 39	2602-1I	♦SIC	14- 36	6230J	♦MMI
93L00DM	♦FSC	28- 40	2602B	♦SIC	14- 47	6230N	♦MMI
93L00FC	♦FSC	28- 41	2602I	♦SIC	14- 48	6231D	♦MMI
93L00FM	♦FSC	28- 42	3101E	AMV	10- 36	6231J	♦MMI
93L28DC	♦FSC	40- 55	3255-9-7K	♦FSC	23- 86	6231N	♦MMI
93L28DM	♦FSC	40- 56	3256-9-7K	♦FSC	23- 87	6246	♦MMI
93L28FC	♦FSC	40- 57	3257-9-7K	♦FSC	23- 26	6247	♦MMI
93L28FM	♦FSC	40- 58	3258-9-7K	♦FSC	23- 58	6255D	♦MMI
93L415CC	♦FSC	14- 1	3260-9-1-7R	♦FSC	23- 43	6260D	♦MMI
93L415DC	♦FSC	14- 2	3260-9-2-7R	♦FSC	24- 44	6297	♦MMI
93L415FC	♦FSC	14- 3	3260-9-4-5E	♦FSC	23- 66	6299	♦MMI
93L415PC	♦FSC	14- 4	3326-4-5E	♦FSC	42- 87	6300D	♦MMI
95H00DC	♦FSC	32- 1	3329-9-5F	♦FSC	44- 91	6300J	♦MMI
375AL	♦TSC	27- 31	3330-9-5F	♦FSC	44- 79	6301D	♦MMI
375BL	TSC	27- 32	3331-9-5F	♦FSC	44- 82	6301J	♦MMI
375CJ	♦TSC	27- 33	3333-9-7K	♦FSC	42- 67	6305D	♦MMI
375CL	♦TSC	27- 34	3341-9-7K	♦FSC	42- 81	6305J	♦MMI
375ML	TSC	27- 35	3383-9-5F	♦FSC	44- 23	6306D	♦MMI
527	♦DTC	32- 60	3501-9-6G	♦FSC	17- 47	6306J	♦MMI
527T	♦DTC	32- 63	3507-9-6G	♦FSC	19- 40	6330D	♦MMI
569T	♦DTC	33- 33	3512-9-6G	♦FSC	19- 43	6330J	♦MMI
1101ADM	♦AMV	13- 5	3512-9-7C	♦FSC	18-107	6331D	♦MMI
1103-1IK	♦SIC	13- 48	3513-9-7C	♦FSC	19- 76	6331J	♦MMI
1103-1XA	♦SIC	13- 49	3514-9-1-7R	♦FSC	21- 28	6335D	♦MMI
1103IK	♦SIC	13- 62	3514-9-2-7R	♦FSC	21- 30	6340D	♦MMI
1103XA	♦SIC	13- 63	3532-9A-7K	♦FSC	13- 30	6530	♦MMI
1216	♦SMI	14- 25	3532-9B-7K	♦FSC	13- 31	6530N	♦MMI
1217	SMI	14- 24	3534-9-7T	♦FSC	13- 64	6531	♦MMI
1217A	SMI	14- 23	3580-9-6G	♦FSC	20- 69	6531N	♦MMI
1217B	SMI	14- 21	3584-9-6G	♦FSC	20- 73	6560D	♦MMI
1217C	SMI	14- 19	3800-4-6H	♦FSC	34- 76	6560N	♦MMI
1218	SMI	14- 22	3800-9-6H	♦FSC	34- 77	6561D	♦MMI
1218A	SMI	14- 20	3801-4-6H	♦FSC	41- 14	6561N	♦MMI
1218B	SMI	14- 18	3801-9-6H	♦FSC	41- 15	9030DC	FSC
1218C	SMI	14- 15	5086D	♦MMI	22- 11	9300DC	FSC
1301#1	♦ITL	19- 7	5200D	♦MMI	17- 99	9300DM	FSC
1301#2	♦ITL	18- 92	5200J	♦MMI	17-100	9300FC	FSC
1402A	AMV	44- 49	5200N	♦MMI	17-101	9300FM	FSC
1403A	AMV	45- 9	5201D	♦MMI	17-102	9328DC	FSC
1404A	AMV	45- 53	5201J	♦MMI	17-103	9328DM	FSC
1405A	AMV	44-103	5201N	♦MMI	17-104	9328FC	FSC
1406T	AMV	43- 25	5205D	♦MMI	20- 27	9328FM	FSC
1407T	AMV	43- 26	5205J	♦MMI	20- 28	10139F	SIC
1506T	AMV	43- 27	5205N	♦MMI	20- 29	10140F	SIC
1507T	AMV	43- 28	5206D	♦MMI	20- 30	10145F	SIC
1601#1	♦ITL	19- 49	5206J	♦MMI	20- 31	10145I	SIC
1601#2	♦ITL	18- 95	5206N	♦MMI	20- 32	10148F	SIC
1701#1	♦ITL	19- 50	5210D	♦MMI	18- 83	10151F	SIC
1701#2	♦ITL	18- 96	5210J	♦MMI	18- 84	10405DC	FSC
1702	♦ITL	19- 51	5210N	♦MMI	18- 85	10410DC	FSC
2316	♦ITL	22- 42	5225D	♦MMI	20-100	10415ADC	FSC
2317	♦ITL	22- 54	5230D	♦MMI	15- 31	10415DC	FSC
2501B	SIC	12-101	5230J	♦MMI	15- 32	10131E	AMV
2501I	♦SIC	12- 99	5230N	♦MMI	15- 33	93403DC	AMV
2502B	SIC	44- 74	5231D	♦MMI	15- 34		FSC
2502I	♦SIC	44- 75	5231J	♦MMI	15- 35	93403DM	AMV
2503TA	SIC	45- 46	5231N	♦MMI	15- 36	93403FM	AMV
2503V	SIC	45- 47	5246	♦MMI	18- 90	93403PC	AMV
2504TA	SIC	45- 99	5247	♦MMI	21- 8	93406DC	FSC
2504V	SIC	45-100	5255D	♦MMI	22- 9	93407ADC	FSC
2505K	AMV	44- 94	5260D	♦MMI	22- 57	93407AFC	FSC
2506T	SIC	43- 52	5299	♦MMI	23-100	93407BDC	FSC
2506V	SIC	43- 53	5300D	♦MMI	18- 61	93407BFC	FSC
2507T	SIC	43- 54	5300J	♦MMI	18- 62	93407BFC	FSC
2507V	SIC	43- 55	5301D	♦MMI	18- 63	93410ADC	FSC
2508XC	SIC	13- 61	5301J	♦MMI	18- 64	93410DC	FSC
2509A	SIC	42- 8	5305D	♦MMI	20- 78	93410DM	FSC
2509K	SIC	42- 9	5305J	♦MMI	20- 79	93410FM	FSC
2510A	SIC	43- 70	5306D	♦MMI	20- 80	93410PC	FSC
2510K	SIC	43- 71	5306J	♦MMI	20- 81	93411DC	FSC
2511A	SIC	44- 20	5330D	♦MMI	15- 69	93411DM	FSC
2511K	SIC	44- 21	5330J	♦MMI	15- 70	93415ADC	FSC
2512K	SIC	45- 65	5331D	♦MMI	15- 71	93415DC	FSC
2513IXCM2140	♦SIC	23- 61	5331J	♦MMI	15- 72	93415DM	FSC
2513IXCMXXXX#1	♦SIC	23- 88	5335D	♦MMI	19- 47	93415FM	FSC
2513IXCMXXXX#2	♦SIC	23- 91	5520	♦DTC	21- 46	93415PC	FSC
2513IXCMXXXX#3	♦SIC	23- 92	5521	♦DTC	40- 75	93416DC	FSC
2513IXCMXXXX#4	♦SIC	23- 93	5527	♦DTC	40- 74	93416DM	FSC
2513IXCMXXXX#5	♦SIC	23- 94	5530	♦DTC	32- 64	93421DC	FSC
2513IXCMXXXX#6	♦SIC	23- 95	5531	♦DTC	12- 3	93421DM	FSC
2513IXCMXXXX#7	♦SIC	23- 96	5531N	♦DTC	12- 4	93425ADC	FSC
2513IXCMXXXX#8	♦SIC	23- 97	5531N	♦DTC	12- 5	93425APC	FSC
2513IXCMXXXX#9	♦SIC	23- 98	5531N	♦DTC	12- 6	93425DC	FSC
2513IXCMXXXX#10	♦SIC	23- 99	5531N	♦DTC	12- 7	93425DM	FSC
2513IXCMXXXX#11	♦SIC	23- 100	5531N	♦DTC	12- 8	93425FM	FSC
2513IXCMXXXX#12	♦SIC	23- 101	5531N	♦DTC	12- 9	93425FC	FSC
2513IXCMXXXX#13	♦SIC	23- 102	5531N	♦DTC	12- 10	93425PC	FSC
2513IXCMXXXX#14	♦SIC	23- 103	5531N	♦DTC	12- 11	93426DC	FSC
2513IXCMXXXX#15	♦SIC	23- 104	5531N	♦DTC	12- 12	93426DM	FSC
2513IXCMXXXX#16	♦SIC	23- 105	5531N	♦DTC	12- 13	93433ADC	FSC
2513IXCMXXXX#17	♦SIC	23- 106	5531N	♦DTC	12- 14	93433AFC	FSC
2513IXCMXXXX#18	♦SIC	23- 107	5531N	♦DTC	12- 15	93433BDC	FSC
2513IXCMXXXX#19	♦SIC	23- 108	5531N	♦DTC	12- 16	93433BDM	FSC
2513IXCMXXXX#20	♦SIC	23- 109	5531N	♦DTC	12- 17	93433BFC	FSC
2513IXCMXXXX#21	♦SIC	23- 110	5531N	♦DTC	12- 18	93433BFC	FSC
2513IXCMXXXX#22	♦SIC	23- 111	5531N	♦DTC	12- 19	93433BFC	FSC
2513IXCMXXXX#23	♦SIC	23- 112	5531N	♦DTC	12- 20	93433BFC	FSC
2513IXCMXXXX#24	♦SIC	23- 113	5531N	♦DTC	12- 21	93433BFC	FSC
2513IXCMXXXX#25	♦SIC	23- 114	5531N	♦DTC	12- 22	93433BFC	FSC
2513IXCMXXXX#26	♦SIC	23- 115	5531N	♦DTC	12- 23	93433BFC	FSC
2513IXCMXXXX#27	♦SIC	23- 116	5531N	♦DTC	12- 24	93433BFC	FSC
2513IXCMXXXX#28	♦SIC	23- 117	5531N	♦DTC	12- 25	93433BFC	FSC
2513IXCMXXXX#29	♦SIC	23- 118	5531N	♦DTC	12- 26	93433BFC	FSC
2513IXCMXXXX#30	♦SIC	23- 119	5531N	♦DTC	12- 27	93433BFC	FSC
2513IXCMXXXX#31	♦SIC	23- 120	5531N	♦DTC	12- 28	93433BFC	FSC
2513IXCMXXXX#32	♦SIC	23- 121	5531N	♦DTC	12- 29	93433BFC	FSC
2513IXCMXXXX#33	♦SIC	23- 122	5531N	♦DTC	12- 30	93433BFC	FSC
2513IXCMXXXX#34	♦SIC	23- 123	5531N	♦DTC	12- 31	93433BFC	FSC
2513IXCMXXXX#35	♦SIC	23- 124	5531N	♦DTC	12- 32	93433BFC	FSC
2513IXCMXXXX#36	♦SIC	23- 125	5531N	♦DTC	12- 33	93433BFC	FSC
2513IXCMXXXX#37	♦SIC	23- 126	5531N	♦DTC	12- 34	93433BFC	FSC
2513IXCMXXXX#38	♦SIC	23- 127	5531N	♦DTC	12- 35	93433BFC	FSC
2513IXCMXXXX#39	♦SIC	23- 128	5531N	♦DTC	12- 36	93433BFC	FSC
2513IXCMXXXX#40	♦SIC	23- 129	5531N	♦DTC	12- 37	93433BFC	FSC
2513IXCMXXXX#41	♦SIC	23- 130	5531N	♦DTC	12- 38	93433BFC	FSC
2513IXCMXXXX#42	♦SIC	23- 131	5531N	♦DTC	12- 39	93433BFC	FSC
2513IXCMXXXX#43	♦SIC	23- 132	5531N	♦DTC	12- 40	93433BFC	FSC
2513IXCMXXXX#44	♦SIC	23- 133	5531N	♦DTC	12- 41	93433BFC	FSC
2513IXCMXXXX#45	♦SIC	23- 134	5531N	♦DTC	12- 42	93433BFC	FSC
2513IXCMXXXX#46	♦SIC	23- 135	5531N	♦DTC	12- 43	93433BFC	FSC
2513IXCMXXXX#47	♦SIC	23- 136	5531N	♦DTC	12- 44	93433BFC	FSC
2513IXCMXXXX#48	♦SIC	23- 137	5531N	♦DTC	12- 45	93433BFC	FSC
2513IXCMXXXX#49	♦SIC	23- 138	5531N	♦DTC	12- 46	93433BFC	FSC
2513IXCMXXXX#50	♦SIC	23- 139	5531N	♦DTC	12- 47	93433BFC	FSC
2513IXCMXXXX#51	♦SIC	23- 140	5531N	♦DTC	12- 48	93433BFC	FSC
2513IXCMXXXX#52	♦SIC	23- 141	5531N	♦DTC	12- 49	93433BFC	FSC
2513IXCMXXXX#53	♦SIC	23- 142	5531N	♦DTC	12- 50	93433BFC	FSC
2513IXCMXXXX#54	♦SIC	23- 143	5531N	♦DTC	12- 51	93433BFC	FSC
2513IXCMXXXX#55	♦SIC	23- 144	5531N	♦DTC	12- 52	93433BFC	FSC
2513IXCMXXXX#56	♦SIC	23- 145	5531N	♦DTC	12- 53	93433BFC	FSC
2513IXCMXXXX#57	♦SIC	23- 146	5531N	♦DTC	12- 54	93433BFC	FSC
2513IXCMXXXX#58	♦SIC	23- 147	5531N	♦DTC	12- 55	93433BFC	FSC
2513IXCMXXXX#59	♦SIC	23- 148	5531N	♦DTC	12- 56	93433BFC	FSC
2513IXCMXXXX#60	♦SIC	23- 149	5531N	♦DTC	12- 57	93433BFC	FSC

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TYPE No.	MFRS Pg&Line	TYPE No.	MFRS Pg&Line	TYPE No.	MFRS Pg&Line	TYPE No.	MFRS Pg&Line	TYPE No.	MFRS Pg&Line
C2102-1	AMV 14-37	CRC4002-2-2	CRC 11-38	EA4016	EAI 23-103	H6201D	MMI 17-80	IM5503ACPE	INL 12-47
C2102-2	AMV 14-44	CRC4003-1-2	CRC 11-58	EA4079	EAI 21-53	H6210N	MMI 17-81	IM5503AMDE	INL 12-60
C3101	AMV 10-65	CRC4003-2-2	CRC 11-59	EA4080	EAI 21-54	HAB1500	PHIN 13-38	IM5503AMFE	INL 12-61
C3101A	AMV 10-42	D3101	ITL 10-67	EA4900#1	EAI 22-45		RTCF	IM5503CDE	INL 12-67
C3101ADM	AMV 10-24	D3101A	ITL 10-43	EA4900#2	EAI 22-46	HAB1501	PHIN 13-41	IM5503CFE	INL 12-68
C3102	ITL 12-7	DL1-2080	GIC 42-91	FDR11621	PHIN 23-3		RTCF	IM5503CPE	INL 12-69
C3102A	ITL 11-99	DL9-1024-23#1	GIC 45-66	FDR11622	RTCF	HAB1502	PHIN 13-43	IM5503MDE	INL 12-70
C3104	ITL 25-2		GIC	FDR11623	PHIN		RTCF	IM5503MFE	INL 12-71
C3106	ITL 12-8	DL9-1024-23#2	GIC 45-86	FDR11624	RTCF	HBC4006AD	SGAI 34-52	IM5508CDE	INL 14-9
C3106A	ITL 11-105		GIC	FDR11625	PHIN	HBC4006AF	SGAI 34-53	IM5508MDE	INL 14-11
C3107	ITL 12-9	DL9-1024-28#1	GIC 45-67	FDR12621#1	RTCF	HBC4006AK	SGAI 34-54	IM5523ACDE	INL 12-48
C3107A	ITL 11-106		GIC	FDR12621#2	PHIN	HBC4014AD	SGAI 36-40	IM5523ACPE	INL 12-49
C3301	ITL 17-87	DL9-1024-28#2	GIC 45-87	FDR12621#3	RTCF	HBC4014AF	SGAI 36-41	IM5523AMDE	INL 12-62
C3301A	ITL 17-77		GIC	FDR12621#4	PHIN	HBC4014AK	SGAI 36-42	IM5523AMFE	INL 12-63
C3304#1	ITL 21-17	DL9-1024-69#1	GIC 45-68	FDR1262Z	RTCF	HBC4015AD	SGAI 33-18	IM5523CDE	INL 12-72
C3304#2	ITL 21-86		GIC	FDR126Z	PHIN	HBC4015AF	SGAI 33-19	IM5523CFE	INL 12-73
C3601	ITL 18-54	DL9-1024-69#2	GIC 45-88	FDR131Z1#1	RTCF	HBC4015AK	SGAI 33-20	IM5523CPE	INL 12-74
C31013	AMV 9-57	DL9-1024-26#1	GIC 44-68	FDR131Z1#2	MULB	HBC4021AD	SGAI 36-43	IM5523MDE	INL 12-75
CD2155D	RCA 34-50	DL9-1402A26#1	GIC 44-63	FDR131Z1#3	PHIN	HBC4021AF	SGAI 36-44	IM5523MFE	INL 12-76
CD4006AD	RCA 34-46	DL9-1402A26#2	GIC 44-64	FDR131Z1#4	RTCF	HBC4021AK	SGAI 36-45	IM5528CDE	INL 14-10
CD4006AE	RCA 34-51	DL9-1402A55#1	GIC 44-64	FDR131Z1#5	PHIN	HBC4031AD	SGAI 42-36	IM5528MDE	INL 14-12
CD4006AK	RCA 36-32	DL9-1403A15#1	GIC 45-37	FDR131Z2	MULB	HBC4031AF	SGAI 42-37	IM5533ACDE	INL 12-50
CD4014AD	RCA 36-33	DL9-1403A15#2	GIC 45-38	FDR131Z3	PHIN	HBC4031AK	SGAI 42-38	IM5533ACPE	INL 12-51
CD4014AE	RCA 33-15	DL9-1403A26#1	GIC 45-32	FDR131Z4	RTCF	HBC4034AD	SGAI 36-46	IM5533AMDE	INL 12-64
CD4014AF	RCA 33-12	DL9-1403A26#2	GIC 45-39	FDR131Z5	PHIN	HBC4034AK	SGAI 36-47	IM5533AMFE	INL 12-65
CD4015AD	RCA 33-16	DL9-1403A55#1	GIC 45-33	FDR131Z6	RTCF	HBC4035AD	SGAI 28-16	IM5533CDE	INL 12-77
CD4015AE	RCA 36-34	DL9-1404A15#1	GIC 45-89	FDR131Z7	MULB	HBC4035AF	SGAI 28-17	IM5533CFE	INL 12-78
CD4015AF	RCA 36-25	DL9-1404A15#2	GIC 45-77	FDR131Z8	PHIN	HBC4035AK	SGAI 28-18	IM5533CPE	INL 12-79
CD4021AD	RCA 36-35	DL9-1404A26#1	GIC 45-90	FDR146BZ1	RTCF	HBC4036AD	SGAI 9-40	IM5533MDE	INL 12-80
CD4021AE	RCA 42-34	DL9-1404A26#2	GIC 45-78	FDR146BZ2	MULB	HBC4036AK	SGAI 9-41	IM5533MFE	INL 12-81
CD4031AD	RCA 42-31	DL9-1404A55#1	GIC 45-91	FDR146BZ3	PHIN	HBF4006AE	SGAI 34-47	IM5600CDE	INL 15-81
CD4031AE	RCA 42-35	DL9-1404A55#2	GIC 45-79	FDR146BZ4	RTCF	HBF4006AF	SGAI 34-48	IM5600CPE	INL 15-82
CD4031AK	RCA 36-36	DL9-2512-23#1	GIC 45-21	FDR146BZ5	PHIN	HBF4014AE	SGAI 36-26	IM5600MDE	INL 15-83
CD4034AD	RCA 28-12	DL9-2512-23#2	GIC 45-34	FDR146Z1	RTCF	HBF4014AF	SGAI 36-27	IM5600MFE	INL 15-84
CD4034AK	RCA 27-27	DL9-2512-28#1	GIC 45-22	FDR146Z2	MULB	HBF4015AE	SGAI 33-13	IM5603ACDE	INL 18-70
CD4035AD	RCA 28-13	DL9-2512-28#2	GIC 45-35	FDR146Z3	PHIN	HBF4015AF	SGAI 33-14	IM5603AMDE	INL 18-71
CD4035AE	RCA 9-36	DL9-2512-28#3	GIC 45-23	FDR146Z4	RTCF	HBF4021AE	SGAI 36-28	IM5603AMFE	INL 18-72
CD4035AK	RCA 9-38	DL9-2512-69#1	GIC 45-36	FDR151BZ	MULB	HBF4031AE	SGAI 42-33	IM5610CDE	INL 15-85
CD4039AD	RCA 12-87	DL9-2512-69#2	GIC 44-60	FDR151Z	PHIN	HBF4035AE	SGAI 27-28	IM5610MDE	INL 15-88
CD4062AD	RCA 44-18	DL9-4256-28#1	GIC 44-65	FDR151Z2	RTCF	HBF4035AF	SGAI 27-29	IM5623ACDE	INL 18-73
CD4062AK	RCA 34-23	DL9-4256-28#2	GIC 44-66	FDR151Z3	PHIN	HD2316	HITJ 9-66	IM5623AMDE	INL 18-74
CD4062AF	SOD 34-22	DL9-4256-69#1	GIC 44-61	FDR151Z4	RTCF	HD2524P	HITJ 39-69	IM5623CDE	INL 18-78
CD4014AD	SOD 34-67		GIC	FDR151Z5	MULB	HD2533P	HITJ 32-3	IM5623MDE	INL 18-79
CD4014AE	SOD 36-18		GIC	FDR151Z6	PHIN	HD2533P	HITJ 32-4	IM5623MFE	INL 18-80
CD4015AD	SOD 33-8		GIC	FDR151Z7	RTCF	HD2534P	HITJ 32-37	IM7501CDE	INL 13-8
CD4015AF	SOD 33-7		GIC	FDR151Z8	PHIN	HD2546P	HITJ 34-20	IM7501MDE	INL 13-9
CD4015AE	SOD 33-17	DM7542J	NSC 31-2	FDR151Z9	RTCF	HD2546P	HITJ 34-21	IM7511CDE	INL 12-100
CD4021AD	SOD 39-50	DM7542N	NSC 31-3	FDR151Z10	PHIN	HD2546P	HITJ 40-31	IM7511MDE	INL 12-103
CD4021AE	SOD 39-49	DM7542W	NSC 31-4	FDR151Z11	RTCF	HD3101P	HITJ 42-10	IM7512CDE	INL 13-10
CD4021AF	SOD 36-39	DM7570D	NSC 39-31	FDR151Z12	PHIN	HD3109P	HITJ 42-11	IM7512MDE	INL 13-21
CD4035AD	SOD 28-14	DM7574D	NSC 17-64	FDR151Z13	RTCF	HD3116P	HITJ 41-33	IM7552-1CDE	INL 14-38
CD4035AE	SOD 27-21	DM7575D	NSC 17-10	FDR151Z14	PHIN	HD3117P	HITJ 41-34	IM7552-1MDE	INL 14-39
CD4035AK	SOD 28-15	DM7576D	NSC 17-11	FDR151Z15	RTCF	HD3118P	HITJ 42-11	IM7552CDE	INL 14-50
CRC1001-3-1	CRC 42-52	DM7590D	NSC 37-1	FDR151Z16	PHIN	HD3213P	HITJ 42-43	IM7552CPE	INL 14-51
CRC1501-1-2	CRC 45-62	DM7596D	NSC 21-1	FDR151Z17	RTCF	HD3214P	HITJ 42-66	IM7552MDE	INL 14-52
CRC1501-2-2	CRC 45-61	DM7597D	NSC 17-65	FDR151Z18	PHIN	HD3222P	HITJ 44-90	IM7552MPE	INL 14-53
CRC1502-1-2	CRC 41-86	DM7597J	NSC 17-90	FDR151Z19	RTCF	HD3502	HITJ 44-59	IM7712CTV	INL 45-80
CRC1502-2-2	CRC 41-87	DM7597N	NSC 17-91	FDR151Z20	PHIN	HD3503	HITJ 45-19	IM7722CTA	INL 45-81
CRC1503-1-2	CRC 41-88	DM7598J	NSC 15-20	FDR151Z21	RTCF	HD3504	HITJ 45-60	IM7780CDE	INL 43-10
CRC1503-2-2	CRC 41-89	DM7599J	NSC 10-78	FDR151Z22	PHIN	HD3505	HITJ 43-29	IM7780CPE	INL 43-11
CRC1504-1-2	CRC 41-51	DM7600D	NSC 28-43	FDR151Z23	RTCF	HD3507	HITJ 43-30	ITT1144-1C	ITT 44-15
CRC1504-2-2	CRC 41-52	DM7606D	NSC 21-12	FDR151Z24	PHIN	HD3508	HITJ 42-76	ITT3329-5C	ITT 44-82
CRC1505-1-3	CRC 42-83	DM8542J	NSC 31-5	FDR151Z25	RTCF	HD3509	HITJ 43-88	ITT3330-5C	ITT 44-90
CRC1505-2-3	CRC 42-84	DM8542N	NSC 31-6	FDR151Z26	PHIN	HD3510	HITJ 44-22	ITT3383-5C	ITT 44-24
CRC1505-3-3	CRC 42-85	DM8542W	NSC 31-7	FDR151Z27	RTCF	HD3512	HITJ 42-89	L5530	MMI 12-21
CRC3001-1-3	CRC 17-22	DM8570N	NSC 39-32	FDR151Z28	PHIN	HD3524	HITJ 42-90	L5530N	MMI 12-22
CRC3001-2-3	CRC 17-23	DM8574D	NSC 17-66	FDR151Z29	RTCF	HEPC3802P-RT	MMOTA 23-106	L5531	MMI 12-23
CRC3001-3-3#1	CRC 20-35	DM8575D	NSC 17-12	FDR151Z30	PHIN	HM2101	HITJ 9-55	L5531N	MMI 12-24
CRC3002-1-3#1	CRC 19-2	DM8576D	NSC 17-13	FDR151Z31	RTCF	HM2501	HITJ 9-106	L5560D	MMI 11-3
CRC3002-1-3#2	CRC 19-3	DM8576D	NSC 17-14	FDR151Z32	PHIN	HM2502	HITJ 10-12	L5560N	MMI 11-4
CRC3002-1-3XXX#1	CRC 19-3	DM8578D	NSC 17-15	FDR151Z33	RTCF	HM3503-1	HITJ 14-57	L5561D	MMI 11-5
CRC3002-1-3XXX#2	CRC 20-36	DM8582N	NSC 12-41	FDR151Z34	PHIN	HM3200P	HITJ 19-42	L5561N	MMI 11-6
CRC3002-2-3#1	CRC 20-37	DM8596D	NSC 21-13	FDR151Z35	RTCF	HPROM0512-2	HAS 16-5	L6530N	MMI 12-18
CRC3002-2-3#2	CRC 19-4	DM8597J	NSC 17-67	FDR151Z36	PHIN	HPROM0512-5	HAS 16-6	L6531	MMI 12-19
CRC3002-2-3XXX#1	CRC 19-5	DM8598J	NSC 15-21	FDR151Z37	RTCF	HPROM0512-8	HAS 16-7	L6531N	MMI 12-20
CRC3002-2-3XXX#2	CRC 20-38	DM8599J	NSC 10-79	FDR151Z38	PHIN	HPROM1024-2	HAS 18-55	L6560D	MMI 10-109
CRC3003-1-3	CRC 17-51	DM8600D	NSC 28-44	FDR151Z39	RTCF	HPROM1024-5	HAS 18-56	L6560N	MMI 10-110
CRC3003-2-3	CRC 17-52	DM8606D	NSC 21-16	FDR151Z40	PHIN	HPROM1024A	HAS 18-57	L6561D	MMI 11-1
CRC3004-1-3	CRC 19-65	DM8696N	NSC 21-17	FDR151Z41	RTCF	HPROM1024A2	HAS 18-58	L6561N	MMI 11-2
CRC3004-2-3	CRC 19-66	EA1004	EAI 43-77	FDR151Z42	PHIN	HPROM1024A4	HAS 18-59	M12071	SGAI 41-49
CRC3501-1-2XXX#1	CRC 19-71	EA1202	EAI 42-80	FDR151Z43	RTCF	HPROM1024A8	HAS 18-60	M12078	SGAI 41-50
CRC3501-1-2XXX#2	CRC 20-96	EA1203	EAI 42-77	FDR151Z44	PHIN	HPROM1256-2	HAS 17-61	M12271	SGAI 41-35
CRC3501-2-2XXX#1	CRC 19-72	EA1500A1#1	EAI 13-39	FDR151Z45	RTCF	HPROM1256-5	HAS 17-62	M12278	SGAI 41-36
CRC3501-2-2XXX#2	CRC 20-97	EA1500A1#2	EAI 13-40	FDR151Z46	PHIN	HPROM1256-8	HAS 17-60	M12471	SGAI 41-83
CRC3502-1-2	CRC 26-7	EA2000#1	EAI 26-70	FDR151Z47	RTCF	HPROM1256-8	HAS 15-79	M12571	SGAI 44-28
CRC3502-2-2	CRC 26-8	EA2000#2	EAI 26-71	FDR151Z48	PHIN	HPROM1256-8	HAS 15-80	M12771	SGAI 43-67
CRC3503-1-2	CRC 26-31	EA2007#1	EAI 22-14	FDR151Z49	RTCF	HPROM1256-8	HAS 10-95	M13071	SGAI 45-92
CRC3503-2-2	CRC 26-32	EA3800	EAI 22-15	FDR151Z50	PHIN	HPROM1256-8	HAS 10-96	M13671	SGAI 45-40
CRC3504-1-2	CRC 23-50	EA3801	EAI 22-16	FDR151Z51	RTCF	HPROM1256-8	HAS 17-7	M13771	SGAI 42-61
CRC3504-2-2	CRC 23-51	EA3815	EAI 22-17	FDR151Z52	PHIN	HPROM1256-8	HAS 22-27	M13772	SGAI 42-62
CRC3505-1-2	CRC 23-52	EA4000	EAI 21-52	FDR151Z53	RTCF	HPROM1256-8	HAS 21-82	M14071	SGAI 41-74
CRC3505-2-2	CRC 23-53	EA4001	EAI 21-53	FDR151Z54	PHIN	HPROM1256-8	HAS 20-92	M14072	SGAI 41-75
CRC4001-1-3	CRC 11-11	EA4004	EAI 23-66	FDR151Z55	RTCF	HPROM1256-8	HAS 19-64	M141D1	SGAI 44-70
CRC4001-2-3	CRC 11-12	EA4015#1	EAI 26-14	FDR151Z56	PHIN	HPROM1256-8	HAS 17-57	M200M1AA	SGAI 23-73
CRC4002-1-2	CRC 11-37	EA4015#2	EAI 26-37	FDR151Z57	RTCF	HPROM1256-8	HAS 16-3	M200M1XX	SGAI 23-74
				FDR151Z58	PHIN	HPROM1256-8	HAS 17-8	M240D1A	SGAI 21-29
				FDR151Z59	RTCF	HPROM1256-8	HAS 18-4	M240D1B	SGAI 21-25
				FDR151Z60	PHIN	HPROM1256-8	HAS 33-31	M250D1	SGAI 20-5
				FDR151Z61	RTCF	HPROM1256-8	HAS 33-32	M1403A	ITL 45-41
				FDR151Z62	PHIN	HPROM1256-8	HAS 27-1	M1404A	ITL 45-93
				FDR151Z63	RTCF	HPROM1256-8	HAS 10-97	M1405A	ITL 44-93
				FDR151Z64	PHIN	HPROM1256-8	HAS 10-98	M1406	AMV 43-36

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M1506	AMV	43-38	JANM38510/00902CFC	SIC	33-60	JANM38510/00905AEC	none	29-15	JANM38510/02801BDC	none	27-59	JANM38510/02803BEA	none	40-41
M1507	AMV	43-39	JANM38510/00903AAA	none	38-57	JANM38510/00905AFA	none	29-16	JANM38510/02801CAA	none	27-60	JANM38510/02803BEB	none	40-42
M5391P	MITJ	39-47	JANM38510/00903AAB	none	38-58	JANM38510/00905AFB	none	29-17	JANM38510/02801CAB	none	27-61	JANM38510/02803BEC	none	40-43
M5395P	MITJ	27-14	JANM38510/00903AAC	none	38-59	JANM38510/00905AFC	none	29-18	JANM38510/02801CAC	none	27-62	JANM38510/02803BEA	none	40-44
JANM38510/00901AAA	none	28-62	JANM38510/00903ABA	none	38-60	JANM38510/00905BEB	none	29-19	JANM38510/02801CBB	none	27-63	JANM38510/02803BFC	none	40-45
JANM38510/00901AAB	none	28-63	JANM38510/00903ABC	none	38-61	JANM38510/00905BEC	none	29-20	JANM38510/02801CBC	none	27-64	JANM38510/02803CEA	none	40-46
JANM38510/00901ABA	none	28-64	JANM38510/00903ACB	none	38-62	JANM38510/00905BFA	none	29-21	JANM38510/02801CCA	none	27-65	JANM38510/02803CEB	none	40-47
JANM38510/00901ABB	none	28-65	JANM38510/00903ACC	none	39-1	JANM38510/00905BFB	none	29-22	JANM38510/02801CCB	none	27-66	JANM38510/02803CEC	none	40-48
JANM38510/00901ABC	none	28-66	JANM38510/00903ACB	none	39-2	JANM38510/00905BFC	none	29-23	JANM38510/02801CCC	none	27-67	JANM38510/02803CFA	none	40-49
JANM38510/00901ACA	none	28-67	JANM38510/00903ACC	none	39-3	JANM38510/00905CEA	none	29-24	JANM38510/02801CDA	none	27-68	JANM38510/02803CFB	none	40-50
JANM38510/00901ACB	none	28-68	JANM38510/00903ADA	none	39-4	JANM38510/00905CEB	none	29-25	JANM38510/02801CDB	none	27-69	JANM38510/02803CFC	none	40-51
JANM38510/00901ACC	none	28-69	JANM38510/00903ADB	none	39-5	JANM38510/00905CEC	none	29-26	JANM38510/02801CDC	none	27-70	JANM38510/02804AEA	none	40-52
JANM38510/00901ADA	none	28-70	JANM38510/00903ADC	none	39-6	JANM38510/00905CFA	none	29-27	JANM38510/02801STD	none	27-71	JANM38510/02804AEB	none	40-53
JANM38510/00901ADB	none	28-71	JANM38510/00903BAA	none	39-7	JANM38510/00905CFB	none	29-28	JANM38510/02802AAA	none	27-72	JANM38510/02804AEC	none	40-54
JANM38510/00901ADC	none	28-72	JANM38510/00903BAB	none	39-8	JANM38510/00905CFB	none	29-29	JANM38510/02802AAB	none	38-9	JANM38510/02804AFA	none	40-55
JANM38510/00901BAA	none	28-73	JANM38510/00903BAC	none	39-9	JANM38510/00906AEA	none	29-30	JANM38510/02802AAC	none	38-10	JANM38510/02804AFB	none	40-56
JANM38510/00901BAB	none	28-74	JANM38510/00903BBA	none	39-10	JANM38510/00906AEB	none	29-31	JANM38510/02802ABA	none	38-11	JANM38510/02804AFC	none	40-57
JANM38510/00901BAC	none	28-75	JANM38510/00903BBB	none	39-11	JANM38510/00906AEC	none	29-32	JANM38510/02802ABB	none	38-12	JANM38510/02804BEA	none	40-58
JANM38510/00901BBA	none	28-76	JANM38510/00903BBC	none	39-12	JANM38510/00906AFA	none	29-33	JANM38510/02802ABC	none	38-13	JANM38510/02804BEB	none	40-59
JANM38510/00901BBB	none	28-77	JANM38510/00903BCA	none	39-13	JANM38510/00906AFB	none	29-34	JANM38510/02802ACA	none	38-14	JANM38510/02804BEC	none	40-60
JANM38510/00901BBC	none	28-78	JANM38510/00903BCB	none	39-14	JANM38510/00906AFC	none	29-35	JANM38510/02802ACB	none	38-15	JANM38510/02804BFA	none	40-61
JANM38510/00901BCA	none	28-79	JANM38510/00903BCC	none	39-15	JANM38510/00906BEA	none	29-36	JANM38510/02802ACC	none	38-16	JANM38510/02804BFB	none	40-62
JANM38510/00901BCB	SIC	28-80	JANM38510/00903BDA	none	39-16	JANM38510/00906BEB	none	29-37	JANM38510/02802ADA	none	38-17	JANM38510/02804BFC	none	40-63
JANM38510/00901BCC	SIC	28-81	JANM38510/00903BDB	none	39-17	JANM38510/00906BEC	none	29-38	JANM38510/02802ADB	none	38-18	JANM38510/02804CEA	none	40-64
JANM38510/00901BDA	none	28-82	JANM38510/00903BDC	none	39-18	JANM38510/00906BFA	none	29-39	JANM38510/02802ADC	none	38-19	JANM38510/02804CEB	none	40-65
JANM38510/00901BDB	none	28-83	JANM38510/00903CAA	none	39-19	JANM38510/00906BFB	none	30-1	JANM38510/02802BAA	none	38-20	JANM38510/02804CEC	none	40-66
JANM38510/00901BDC	none	28-84	JANM38510/00903CAB	none	39-20	JANM38510/00906BFC	none	30-2	JANM38510/02802BAB	none	38-21	JANM38510/02804CFA	none	40-67
JANM38510/00901CAA	none	28-85	JANM38510/00903CAC	none	39-21	JANM38510/00906CEA	none	30-3	JANM38510/02802BAC	none	38-22	JANM38510/02804CFB	none	40-68
JANM38510/00901CAB	none	29-1	JANM38510/00903CBA	none	39-22	JANM38510/00906CEB	none	30-4	JANM38510/02802BBA	none	38-23	JANM38510/02804CFC	none	40-69
JANM38510/00901CAC	none	29-2	JANM38510/00903CBB	none	39-23	JANM38510/00906CEC	none	30-5	JANM38510/02802BBB	none	38-24	JANM38510/02805AAA	none	40-70
JANM38510/00901CBA	none	29-3	JANM38510/00903CBC	none	39-24	JANM38510/00906CFA	none	30-6	JANM38510/02802BBC	none	38-25	JANM38510/02805AAB	none	40-71
JANM38510/00901CBB	none	29-4	JANM38510/00903CCA	none	39-25	JANM38510/00906CFB	none	30-7	JANM38510/02802BCA	none	38-26	JANM38510/02805AAC	none	40-72
JANM38510/00901CBC	none	29-5	JANM38510/00903CCB	none	39-26	JANM38510/00906CFC	none	30-8	JANM38510/02802BCB	none	38-27	JANM38510/02805ABA	none	40-73
JANM38510/00901CCA	none	29-6	JANM38510/00903CCC	none	39-27	JANM38510/02801AAA	none	27-36	JANM38510/02802BCC	none	38-28	JANM38510/02805ABB	none	40-74
JANM38510/00901CCB	SIC	29-7	JANM38510/00903CDA	none	39-28	JANM38510/02801AAB	none	27-37	JANM38510/02802BDA	none	38-29	JANM38510/02805ABC	none	40-75
JANM38510/00901CCC	SIC	29-8	JANM38510/00903CDB	none	39-29	JANM38510/02801AAC	none	27-38	JANM38510/02802BDB	none	38-30	JANM38510/02805ACA	none	40-76
JANM38510/00901CDA	none	29-9	JANM38510/00903CDC	none	39-30	JANM38510/02801ABA	none	27-39	JANM38510/02802BDC	none	38-31	JANM38510/02805ACB	none	40-77
JANM38510/00901CDB	none	29-10	JANM38510/00904AEA	none	36-69	JANM38510/02801ABB	none	27-40	JANM38510/02802CAA	none	38-32	JANM38510/02805ACC	none	40-78
JANM38510/00901CDC	none	29-11	JANM38510/00904AEB	none	36-70	JANM38510/02801ABC	none	27-41	JANM38510/02802CAB	none	38-33	JANM38510/02805ADA	none	40-79
JANM38510/00901STD	none	29-12	JANM38510/00904AEC	none	36-71	JANM38510/02801ACA	none	27-42	JANM38510/02802CAC	none	38-34	JANM38510/02805ADB	none	40-80
JANM38510/00902AEA	none	30-24	JANM38510/00904AFA	none	36-72	JANM38510/02801ACB	none	27-43	JANM38510/02802CBA	none	38-35	JANM38510/02805ADC	none	40-81
JANM38510/00902AEB	none	33-43	JANM38510/00904AFB	none	36-73	JANM38510/02801ACC	none	27-44	JANM38510/02802CBB	none	38-36	JANM38510/02805BAA	none	40-82
JANM38510/00902AEC	none	33-44	JANM38510/00904AFC	none	36-74	JANM38510/02801ADA	none	27-45	JANM38510/02802CBC	none	38-37	JANM38510/02805BAB	none	40-83
JANM38510/00902AFA	none	33-45	JANM38510/00904BEA	none	36-75	JANM38510/02801ADB	none	27-46	JANM38510/02802CCA	none	38-38	JANM38510/02805BAC	none	40-84
JANM38510/00902AFB	none	33-46	JANM38510/00904BEB	none	36-76	JANM38510/02801ADC	none	27-47	JANM38510/02802CCB	none	38-39	JANM38510/02805BBA	none	40-85
JANM38510/00902AFC	none	33-47	JANM38510/00904BEC	none	36-77	JANM38510/02801BAA	none	27-48	JANM38510/02802CCC	none	38-40	JANM38510/02805BBB	none	40-86
JANM38510/00902BEA	none	33-48	JANM38510/00904BFA	none	36-78	JANM38510/02801BAB	none	27-49	JANM38510/02802CDA	none	38-41	JANM38510/02805BBC	none	40-87
JANM38510/00902BEB	ITT	33-49	JANM38510/00904BFB	none	36-79	JANM38510/02801BAC	none	27-50	JANM38510/02802CDB	none	38-42	JANM38510/02805BCA	none	40-88
JANM38510/00902BEC	ITT	33-50	JANM38510/00904BFC	none	36-80	JANM38510/02801BBA	none	27-51	JANM38510/02802CDC	none	38-43	JANM38510/02805BCB	none	40-89
JANM38510/00902AFA	none	33-51	JANM38510/00904CEA	none	37-1	JANM38510/02801BBB	none	27-52	JANM38510/02802STD	none	38-44	JANM38510/02805BCC	none	40-90
JANM38510/00902AFB	none	33-52	JANM38510/00904CEB	none	37-2	JANM38510/02801BBC	none	27-53	JANM38510/02803AEA	none	40-35	JANM38510/02805BDA	none	40-91
JANM38510/00902AFC	SIC	33-53	JANM38510/00904CEC	none	37-3	JANM38510/02801BCA	none	27-54	JANM38510/02803AEB	none	40-36	JANM38510/02805BDB	none	40-92
JANM38510/00902CEA	none	33-54	JANM38510/00904CFA	none	37-4	JANM38510/02801BCB	none	27-55	JANM38510/02803AEC	none	40-37	JANM38510/02805BDC	none	40-93
JANM38510/00902CEB	ITT	33-55	JANM38510/00904CFB	none	37-5	JANM38510/02801BCC	none	27-56	JANM38510/02803AFA	none	40-38	JANM38510/02805CAA	none	40-94
JANM38510/00902CEC	ITT	33-56	JANM38510/00904CFC	none	37-6	JANM38510/02801BDA	none	27-57	JANM38510/02803AFB	none	40-39	JANM38510/02805CAB	none	40-95
JANM38510/00902CFA	none	33-57	JANM38510/00904AEA	none	29-13	JANM38510/02801BDB	none	27-58	JANM38510/02803AFC	none	40-40	JANM38510/02805CAC	none	40-96
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1. TYPE No. CROSS INDEX

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JANM38510/02805CBA	none	JANM38510/05703BFC	none	JANM38510/20101BKC	none	MC4305F	♦MOTA	10- 5	MCM1151L#1	♦MOTA	26- 19
JANM38510/02805CBB	37- 69	JANM38510/05703CEA	32- 77	JANM38510/20101BZA	16- 29	MC4305L	♦MOTA	10- 6	MCM1151L#2	♦MOTA	26- 42
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JANM38510/02805DD	38- 5	JANM38510/05704AEC	36- 1	JANM38510/20101CKC	16- 37	MC7270P	♦MOTA	29- 57	MCM4087AL%	♦MOTA	26- 52
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JANM38510/05701ACB	34- 28	JANM38510/05704AFB	36- 3	JANM38510/20101CZB	16- 39	MC7271P	♦MOTA	29- 59	MCM4088AL%	♦MOTA	26- 54
JANM38510/05701ACC	34- 29	JANM38510/05704AFC	36- 4	JANM38510/20101CZC	16- 40	MC7484L	♦MOTA	10- 8	MCM4088L%	♦MOTA	26- 55
JANM38510/05701ADA	34- 30	JANM38510/05704BEA	36- 5	JANM38510/20102AJA	16- 41	MC7484P	♦MOTA	10- 9	MCM4089AL%	♦MOTA	26- 63
JANM38510/05701ADB	34- 31	JANM38510/05704BEB	36- 6	JANM38510/20102AJB	16- 42	MC7491AL	♦MOTA	39- 71	MCM4070AL%	♦MOTA	26- 64
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JANM38510/05701BCB	34- 34	JANM38510/05704BFB	36- 9	JANM38510/20102AKB	16- 45	MC7494P	♦MOTA	32- 7	MCM4304L	♦MOTA	18- 8
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JANM38510/05701BDA	34- 36	JANM38510/05704CEA	36- 11	JANM38510/20102AZA	16- 47	MC7495L	♦MOTA	31- 40	MCM5003L	♦MOTA	16- 8
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JANM38510/05702AEB	35- 73	JANM38510/05705AFB	42- 17	JANM38510/20102BZB	16- 57	MC8391L	♦MOTA	39- 74	MCM6561L#2	♦MOTA	26- 16
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JANM38510/05702AFA	35- 75	JANM38510/05705BEA	42- 19	JANM38510/20102CJA	16- 59	MC8394L	♦MOTA	32- 8	MCM6561L#4	♦MOTA	26- 20
JANM38510/05702AFB	35- 76	JANM38510/05705BEB	42- 20	JANM38510/20102CJB	16- 60	MC8394P	♦MOTA	32- 9	MCM6561L#5	♦MOTA	26- 29
JANM38510/05702AFC	35- 77	JANM38510/05705BEC	42- 21	JANM38510/20102CJC	16- 61	MC8396L	♦MOTA	33- 67	MCM6561L#6	♦MOTA	26- 1
JANM38510/05702BEA	35- 78	JANM38510/05705BFA	42- 22	JANM38510/20102CKA	16- 62	MC9300L	♦MOTA	30- 27	MCM6570L	♦MOTA	23- 108
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JANM38510/05702BFB	35- 82	JANM38510/05705CEB	42- 26	JANM38510/20102CZB	17- 4	MC9396L	♦MOTA	33- 69	MCM6575L	♦MOTA	24- 4
JANM38510/05702BFC	35- 83	JANM38510/05705CEC	42- 27	JANM38510/20102CZC	17- 5	MC10141L	♦MOTA	31- 105	MCM6576L	♦MOTA	24- 5
JANM38510/05702CEA	35- 84	JANM38510/05705CFA	42- 28			MC10141P	♦MOTA	31- 106	MCM6580L	♦MOTA	23- 85
JANM38510/05702CEB	35- 85	JANM38510/05705CFB	42- 29	M53284P	MITJ	MC10145	♦MOTA	10- 15	MCM6581L	♦MOTA	23- 36
JANM38510/05702CEC	35- 86	JANM38510/05705CFC	42- 30	M53289P	MITJ	MC10541F	♦MOTA	31- 107	MCM6583L	♦MOTA	23- 37
JANM38510/05702CFA	35- 87	JANM38510/20101AJA	16- 15	M53295P	MITJ	MC10541L	♦MOTA	31- 108	MCM6590L	♦MOTA	22- 41
JANM38510/05702CFB	35- 88	JANM38510/20101AJB	16- 16	M53296P	MITJ	MC14006AL	♦MOTA	34- 27	MCM6591L#1	♦MOTA	26- 17
JANM38510/05702CFC	35- 89	JANM38510/20101AJC	16- 17	M53364P	MITJ	MC14006CL	♦MOTA	34- 25	MCM6591L#2	♦MOTA	26- 40
JANM38510/05703AEA	32- 66	JANM38510/20101AKA	16- 18	M53365P	MITJ	MC14006CP	♦MOTA	34- 26	MCM6591L#3	♦MOTA	26- 2
JANM38510/05703AEB	32- 67	JANM38510/20101AKB	16- 19	M53366P	MITJ	MC14014AL	♦MOTA	39- 53	MCM6591L#4	♦MOTA	26- 22
JANM38510/05703AEC	32- 68	JANM38510/20101AKC	16- 20	M53398P	MITJ	MC14014CL	♦MOTA	39- 51	MCM6591L#5	♦MOTA	26- 24
JANM38510/05703AFA	32- 69	JANM38510/20101AZA	16- 21	M53399P	MITJ	MC14014CP	♦MOTA	39- 52	MCM6591L#6	♦MOTA	26- 56
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				M54730S	MITJ	MC14035CP	♦MOTA	27- 24	MCM10142L	♦MOTA	11- 25
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SN5496W	♦TII	33-86	SN74199N	♦TII	35-58	TMS3131NC	♦TII
SN7481AJ	♦TII	9-82	SN74199W	♦TII	35-59	TMS3132LC	♦TII
SN7481AN	♦TII	9-83	SN74200D	♦NSC	12-36	TMS3132NC	♦TII
SN7481AW	♦TII	9-84	SN74200N	♦NSC	12-37	TMS3401LC	♦TII
SN7484AJ	♦TII	9-85	SN74278J	♦TII	27-18	TMS3401NC	♦TII
SN7484AN	♦TII	9-86	SN74278N	♦TII	27-19	TMS3402LC	♦TII
SN7484AW	♦TII	9-87	SN74278W	♦TII	27-20	TMS3402NC	♦TII
SN7488AJ	♦TII	15-26	SN81002	♦TII	11-23	TMS3409JC	♦TII
SN7488AN	♦TII	15-27	SP3271B	♦SIC	28-37	TMS3409NC	♦TII
SN7488AW	♦TII	15-28	SS5-8211-31	♦GIC	41-39	TMS3417JC	♦TII
SN7489J	♦AMV	10-81	SS5-8211-55	♦GIC	41-40	TMS3417NC	♦TII
SN7489N	♦AMV	10-82	SS5-8212-16	♦GIC	41-41	TMS4024JC	♦TII
	♦TII		SS5-8212-69	♦GIC	41-42	TMS4024NC	♦TII
SN7489W	♦TII	10-83	SS6-8211-55	♦GIC	41-43	TMS4030JC	♦TII
SN7491AJ	♦TII	40-13	SS6-8212-16	♦GIC	41-44	TMS4030NC	♦TII
SN7491AN	♦TII	40-14	SS6-8212-69	♦GIC	41-45	TMS4062JL	♦TII
SN7494J	♦TII	32-19	SS4015AE	♦SST	33-11	TMS4062NL	♦TII
SN7494N	♦TII	32-20	SW7491AJ	♦SWM	40-22	TMS4063JL	♦TII
SN7494W	♦TII	32-21	SW7491AN	♦SWM	40-23	TMS4103JC	♦TII
SN7495AJ	♦TII	30-53	SW7494J	♦SWM	32-22	TMS4103NC	♦TII
SN7495AN	♦TII	30-54	SW7494N	♦SWM	32-23	TSR2511F	♦TEC
SN7495N	♦NSC	29-46	SW7495J	♦SWM	29-47	TSR2511J	♦TEC
SN7496J	♦TII	33-87	SW7495N	♦SWM	29-48	TSR2512F	♦TEC
SN7496N	♦TII	34-1	SW7496J	♦SWM	34-2	TSR2512J	♦TEC
SN10139	♦TII	15-19	SW7496N	♦SWM	34-3	TSR2513F	♦TEC
SN10140JE	♦TII	11-32	SW74166J	♦SWM	37-38	TSR2513J	♦TEC
SN10141J	♦TII	31-109	SW74166N	♦SWM	37-39	TSR2514F	♦TEC
SN10141N	♦TII	31-110	SW74198N	♦SWM	35-60	TSR2514J	♦TEC
SN10142JE	♦TII	11-22	SW74199N	♦SWM	35-61	UA2525D#1	♦SOD
SN10144JE	♦TII	11-78	T54589J	♦TEC	10-50	UA2525D#2	♦SOD
SN10145JE	♦TII	10-17	T545194F	♦TEC	31-89	UA2525D#3	♦SOD
SN10147JE	♦TII	11-65	T545194J	♦TEC	31-90	UA2525D#4	♦SOD
SN10148JE	♦TII	11-33	T545195F	♦TEC	31-91	UA2548#1	♦SOD
SN54164J	♦TII	39-43	T545195J	♦TEC	31-92	UA2548#2	♦SOD
SN54164W	♦TII	39-44	T74589J	♦TEC	10-51	UA2548#3	♦SOD
SN54165J	♦TII	37-18	T745194F	♦TEC	31-93	UA2548#4	♦SOD
SN54165N	♦TII	37-19	T745194J	♦TEC	31-94	UA2556	♦SOD
SN54165W	♦TII	37-20	T745195F	♦TEC	31-95	UA2564D	♦SOD
SN54166J	♦TII	37-32	T745195J	♦TEC	31-96	UA2564F	♦SOD
SN54166N	♦TII	37-33	T745200J	♦TEC	12-27	UA2572D	♦SOD
SN54166W	♦TII	37-34	T102	♦ABA	33-30	UA2596D4#1	♦SOD
SN54170J	♦TII	9-20	T104	♦ABA	40-76	UA2596D4#2	♦SOD
SN54170W	♦TII	9-21	T150B1	♦SGAI	29-49	UA2596D4#3	♦SOD
SN54178J	♦TII	30-55	T150D1	♦SGAI	29-50	UA2596D4#4	♦SOD
SN54178N	♦TII	30-56	T150D2	♦SGAI	29-51	UA2596D8#1	♦SOD
SN54178W	♦TII	30-57	T153B1A	♦SGAI	9-53	UA2596D8#2	♦SOD
SN54179J	♦TII	30-58	T153B1B	♦SGAI	9-54	UA2596D8#3	♦SOD
SN54179N	♦TII	30-59	T154D1	♦SGAI	15-55	UA2596D8#4	♦SOD
SN54179W	♦TII	30-60	T154D1A%	♦SGAI	23-104	UA2656	♦SOD
SN54186J	♦TII	15-104	T154D1B%	♦SGAI	23-105	UA2664D	♦SOD
SN54186N	♦TII	15-105	T165D1	♦SGAI	10-108	UA2764D	♦SOD
SN54186W	♦TII	15-106	T7481B1	♦SGAI	10-10	UA2864D	♦SOD
SN54187J	♦TII	17-94	T7484B1	♦SGAI	10-11	UA3525D#1	♦SOD
SN54187W	♦TII	17-95	T9300F	♦TEC	31-33	UA3525D#2	♦SOD
SN54194J	♦AMV	30-61	T9300FM	♦TEC	31-34	UA3525D#3	♦SOD
	♦TII		T9300J	♦TEC	31-35	UA3525D#4	♦SOD
SN54194W	♦AMV	30-62	T9300JM	♦TEC	31-36	UA3525F#1	♦SOD
	♦TII		TL1170L	♦ALGG	11-13	UA3525F#2	♦SOD
SN54195J	♦AMV	31-29	TL7491AN	♦ALGG	40-24	UA3525F#3	♦SOD
	♦TII		TL7494N	♦ALGG	28-38	UA3525F#4	♦SOD
SN54195W	♦AMV	31-30	TL7495AN	♦ALGG	31-51	UA3540D4	♦SOD
	♦TII		TL7496N	♦ALGG	34-4	UA3540D8	♦SOD
SN54198J	♦TII	35-48	TL74164N	♦ALGG	35-69	UA3548#1	♦SOD
SN54198N	♦TII	35-49	TL74165N	♦ALGG	35-65	UA3548#2	♦SOD
SN54198W	♦TII	35-50	TL74166N	♦ALGG	35-66	UA3548#3	♦SOD
SN54199J	♦TII	35-51	TL74198N	♦ALGG	35-67	UA3548#4	♦SOD
SN54199N	♦TII	35-52	TL74199N	♦ALGG	35-68	UA3556	♦SOD
SN54199W	♦TII	35-53	TL84164N	♦ALGG	35-70	UA3564D	♦SOD

♦Copy of mfr's data sheet
may be ordered from D.A.T.A.

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1)No.WORDS(2)No.BITS/WORD
(3)MODE(4)STRUCT.(5)MAX. ACC.TIME(6)TYPE No.

LINE No.	6	TYPE No.	ORGANIZATION			M STRUCTURE	MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE	DRAWINGS	
			1 No. WORDS	2 BITS PER WORD	3 CODE					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)	@ OUT (V)			LOGIC/BLOCK	OUTLINE
1		9030DC	4	2	S	BTX	25n	45n	350m	0.0	4.5	.80	1.25	5.0uA		0 7	A47	ML19c	
2		MIC9030-5D	4	2	S	BTX	25n	45n	350m	0.0	4.5	.80	1.25	5.0uA		0 7	A47	ML19c	
3		95401DC	4	4	S	BEX	10n	6.0n	416m	5.2	0.0	-1.4	-1.1	50m		0 7	A60a	TO116	
4#		FLQ131	4	4	S	BTX	25n		635m	0.0	5.0	.80	2.0	16m	.40	0 7			
5#		FLQ135	4	4	S	BTX	25n		635m	0.0	5.0	.80	2.0	16m	.40	2 8			
6#		N74170B	4	4	S	BTX		25n*	750m	0.0	5.0	.80	2.0	16m	.40	0 7	A141	ML132	
7#		N74170F	4	4	S	BTX		25n*	750m	0.0	5.0	.80	2.0	16m	.40	0 7	A141	ML61d	
8#		S54170B	4	4	S	BTX		25n*	750m	0.0	5.0	.80	2.0	16m	.40	5 C	A141	ML132	
9#		S54170F	4	4	S	BTX		25n*	750m	0.0	5.0	.80	2.0	16m	.40	5 C	A141	ML61d	
10#		S54170W	4	4	S	BTX		25n*	750m	0.0	5.0	.80	2.0	16m	.40	5 C	A141	FL25	
11#		M53284P	4	4	S	BTX	20n	60n	480m	0.0	5.0	.80	2.0	40m	.40	0 7	A84	ML5a	
12		SN54LS170J	4	4	S	BTX	20nt	25n*	220m	0.0	5.0	.70	2.0	4.0m	.40	5 C	A156	ML61a	
13		SN54LS170W	4	4	S	BTX	20nt	25n*	220m	0.0	5.0	.70	2.0	4.0m	.40	5 C	A156	MO004AG	
14		SN54LS670J	4	4	S	BTX	20nt	25n*	275m	0.0	5.0	.70	2.0	4.0m	.40	5 C	A157	ML61a	
15		SN54LS670W	4	4	S	BTX	20nt	25n*	275m	0.0	5.0	.70	2.0	4.0m	.40	5 C	A157	MO004AG	
16		SN74LS170J	4	4	S	BTX	20nt	25n*	210m	0.0	5.0	.80	2.0	4.0m	.40	0 7	A156	ML61a	
17		SN74LS170N	4	4	S	BTX	20nt	25n*	210m	0.0	5.0	.80	2.0	4.0m	.40	0 7	A156	ML48	
18		SN74LS670J	4	4	S	BTX	20nt	25n*	262m	0.0	5.0	.80	2.0	4.0m	.40	0 7	A157	ML61a	
19		SN74LS670N	4	4	S	BTX	20nt	25n*	262m	0.0	5.0	.80	2.0	4.0m	.40	0 7	A157	ML48	
20		SN54170J	4	4	S	BTX	20nt	25n*	770m	0.0	5.0	.80	2.0	16m	.40	5 C	A141	ML61a	
21		SN54170W	4	4	S	BTX	20nt	25n*	770m	0.0	5.0	.80	2.0	16m	.40	5 C	A141	MO004AG	
22		SN74170J	4	4	S	BTX	20nt	25n*	787m	0.0	5.0	.80	2.0	16m	.40	0 7	A141	ML61a	
23		SN74170N	4	4	S	BTX	20nt	25n*	787m	0.0	5.0	.80	2.0	16m	.40	0 7	A141	ML48	
24		TMC3362F	4	4	S	BTX	20n	25n	300m	0.0	5.0	1.0	2.1	40m	.45	0 7	A45	TO86	
25		TMC3362J	4	4	S	BTX	20n	25n	300m	0.0	5.0	1.0	2.1	40m	.45	0 7	A45	TO116	
26		TMC3364F	4	4	S	BTX	20n	25n	300m	0.0	5.0	1.0	2.1	20m	.45	0 7	A45	TO86	
27		TMC3364J	4	4	S	BTX	20n	25n	300m	0.0	5.0	1.0	2.1	20m	.45	0 7	A45	TO116	
28		TMC3762F	4	4	S	BTX	20n	25n	300m	0.0	5.0	1.0	2.1	40m	.45	0 7	A45	TO86	
29		TMC3762J	4	4	S	BTX	20n	25n	300m	0.0	5.0	1.0	2.1	40m	.45	0 7	A45	TO116	
30		TMC3764F	4	4	S	BTX	20n	25n	300m	0.0	5.0	1.0	2.1	20m	.45	0 7	A45	TO86	
31		TMC3764J	4	4	S	BTX	20n	25n	300m	0.0	5.0	1.0	2.1	20m	.45	0 7	A45	TO116	
32		TMC3363F	4	4	S	BTX	23n	25n	300m	0.0	5.0	.90	2.2	20m	.45	5 C	A45	TO86	
33		TMC3363J	4	4	S	BTX	23n	25n	300m	0.0	5.0	.90	2.2	20m	.45	5 C	A45	TO116	
34		TMC3763F	4	4	S	BTX	23n	25n	300m	0.0	5.0	.90	2.2	20m	.45	5 C	A45	TO86	
35		TMC3763J	4	4	S	BTX	23n	25n	300m	0.0	5.0	.90	2.2	20m	.45	5 C	A45	TO116	
36		CD4036AD	4	8	S	MCA	1.0u	125u	200m	0.0	5.0	.050	4.95	120u	.50	5 C	A110	ML30e	
37		CD4036AK	4	8	S	MCA	1.0u	125u	200m	0.0	5.0	.050	4.95	120u	.50	5 C	A110	FL28	
38		CD4039AD	4	8	S	MCA	1.0u	125u	200m	0.0	5.0	.050	4.95	120u	.50	5 C	A111	ML30e	
39		CD4039AK	4	8	S	MCA	1.0u	125u	200m	0.0	5.0	.050	4.95	120u	.50	5 C	A111	FL28	
40#		HBC4036AD	4	8	S	MCA	1.0u	125u	200m	0.0	5.0	.05	4.95	120u	.50	5 C	A110	ML30e	
41#		HBC4036AK	4	8	S	MCA	1.0u	125u	200m	0.0	5.0	.05	4.95	120u	.50	5 C	A110	LF28	
42#		MCM10143L	8	2	S	BEX	15n	8.0n	764m	5.2	0.0	-1.6	-70			3 8	A134	ML30f	
43#		N74S172F	8	2	S	BTX			850m	0.0	5.0	.80	2.0	16m	.40	0 7	A172	ML133	
44#		N74S172N	8	2	S	BTX			850m	0.0	5.0	.80	2.0	16m	.40	0 7	A172	ML135	
45#		N74172F	8	2	S	BTX			850m	0.0	5.0	.80	2.0	16m	.40	0 7	A172	ML133	
46#		N74172N	8	2	S	BTX			850m	0.0	5.0	.80	2.0	16m	.40	0 7	A172	ML135	
47#		S54S172F	8	2	S	BTX			850m	0.0	5.0	.80	2.0	16m	.40	0 7	A172	ML133	
48#		S54S172N	8	2	S	BTX			850m	0.0	5.0	.80	2.0	16m	.40	0 7	A172	ML135	
49		SN74172J	8	2	S	BTX	35nt	25n*	850m	0.0	5.0	.80	2.0	16m	.40	0 7	A142	MO015AA	
50		SN74172N	8	2	S	BTX	35nt	25n*	850m	0.0	5.0	.80	2.0	16m	.40	0 7	A142	ML72	
51#		N82S12	8	4	S	BTX	30n	30nt	840m	0.0	5.0	.85	2.0			0 7	A173		
52#		N82S112	8	4	S	BTX	30n	30nt	840m	0.0	5.0	.85	2.0			0 7	A173		
53#		T153B1A	16	1	S				250m	0.0	7.0					0 7	A60	ML58	
54#		T153B1B	16	1	S				250m	0.0	7.0					0 7	A60	ML58	
55#		HM2101	16	1	S	BEX	5.0nt	15n	500m	5.0	0.0	1.8	.74			0 7	A33	ML109	
56		91100111	16	1	S	BEX	6.5nt	25nt	390m	5.2	0.0	-1.3	-1.0	25m		0 7	A10	TO116	
57		CD2155D	16	1	S	BEX	25nt	25nt	315m	5.0	0.0	-1.5	-.85			5 C	A33	ML16	
58		MC1036P	16	1	S	BEX	22n	25n	250m	5.2	0.0	-1.5	-.85	10m	-.85	0 7	A32	ML38	
59		MC1037P	16	1	S	BEX	22n	25n	250m	5.2	0.0	-1.5	-.85	10m	-.85	0 7	A32	ML38	
60		MC1236L	16	1	S	BEX	22n	25n	250m	5.2	0.0	-1.5	-.85	10m	-.85	5 C	A32	ML66	
61		MC1237L	16	1	S	BEX	22n	25n	250m	5.2	0.0	-1.5	-.85	10m	-.85	5 C	A32	ML66	
62#		FLQ111	16	1	S	BTX	20n		225m	0.0	5.0	.80	2.0	40m	.40	0 7			
63#		FLQ115	16	1	S	BTX	20n		225m	0.0	5.0	.80	2.0	40m	.40	2 8			
64#		FLQ121	16	1	S	BTX	20n		225m	0.0	5.0	.80	2.0	40m	.40	0 7			
65#		FLQ125	16	1	S	BTX	20n		225m	0.0	5.0	.80	2.0	40m	.40	2 8			
66#		HD2316	16	1	S	BTX		20n		0.0	5.0	65%	5.3	6.0m	.48	6 H	A93	ML109	
67#		MIC5481J	16	1	S	BTX	20nt		275m	0.0	5.0	.80	2.1	20m	.40	5 C	A45	TO116	
68#		MIC5484J	16	1	S	BTX	20nt		275m	0.0	5.0	.80	2.1	20m	.40	5 C	A84	ML61	
69#		MIC6481J	16	1	S	BTX	20nt		275m	0.0	5.0	.80	2.1						

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1) No. WORDS (2) No. BITS / WORD
(3) MODE (4) STRUCT. (5) MAX ACC. TIME (6) TYPE No.

LINE No.	TYPE No.	ORGANIZATION		3 4	5	MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
		1 No. WORDS	2 BITS PER WORD						M O S T R U C T U R E D CODE	NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)			@ OUT (V)	LOGIC/ BLOCK	OUTLINE
1	MC4005L	16	1	S	BTX	35n	25n	250m	0.0	5.0	45%	2.5	20m	45	0	7	A27	ML35	
2	MC4005P	16	1	S	BTX	35n	25n	250m	0.0	5.0	45%	2.5	20m	45	0	7	A27	ML38	
3	MC4304F	16	1	S	BTX	35n	25n	250m	0.0	5.0	45%	2.5	40m	45	5	C	A27	TO86	
4	MC4304L	16	1	S	BTX	35n	25n	250m	0.0	5.0	45%	2.5	40m	45	5	C	A27	ML35	
5	MC4305F	16	1	S	BTX	35n	25n	250m	0.0	5.0	45%	2.5	20m	45	5	C	A27	TO86	
6	MC4305L	16	1	S	BTX	35n	25n	250m	0.0	5.0	45%	2.5	20m	45	5	C	A27	ML35	
7	MC5484L	16	1	S	BTX	35n	60n*	250m	0.0	5.0	45%		40m	45	5	C	A67	ML5	
8	MC7484L	16	1	S	BTX	35n	60n*	250m	0.0	5.0	45%		20m	45	0	7	A67	ML5	
9	MC7484P	16	1	S	BTX	35n	60n*	250m	0.0	5.0	45%		20m	45	0	7	A67	ML40	
10▼	#T7481B1	16	1	S	BTX	60n	25n	275m	0.0	5.0	40%	5.5	40m	40	0	7	A84a	MO001AB	
11▼	#T7484B1	16	1	S	BTX	60n	25n	275m	0.0	5.0	40%	5.5	40m	40	0	7	A84	MO001AC	
12	HM2502	16	4	D	BTX	60n	40n	750m	0.0	5.0	80	2.0	16m	45	2	7	A99a	ML120	
13▼	10145F	16	4	S	BEX	8.5n		754m	5.2	0.0	-1.6	-96			3	8	A114	ML93b	
14▼	10145I	16	4	S	BEX	8.5n		754m	5.2	0.0	-1.6	-96			3	8	A114	ML171	
15	MC10145	16	4	S	BEX	10n	7.5n		5.2	0.0	-1.6	-96			3	8	A114	ML60b	
16	95400DC	16	4	S	BEX	12n	9.0n	442m	5.2	0.0	-1.4	-1.1	50m		0	7	A81	ML15a	
17▼	SN10145JE	16	4	S	BEX	15n	10n	780m	5.2	0.0	-1.6	-98			0	8	A179	ML140b	
18▼	#FLQ101	16	4	S	BTC	40n		375m	0.0	5.0	80	2.0	16m	45	0	7			
19▼	#FLQ105	16	4	S	BTC	40n		375m	0.0	5.0	80	2.0	16m	45	2	8			
20#	MD5501	16	4	S	BTC	50n	25n	575m	0.0	5.5	80	2.0	10m	40	5	C	A3	ML10a	
21#	MD6501	16	4	S	BTC	50n	25n	575m	0.0	5.5	85	2.0	15m	45	0	7	A3	ML10a	
22#	MD5500	16	4	S	BTC	60n	25n	575m	0.0	5.5	80	2.0	10m	40	5	C	A3	ML10a	
23#	MD6500	16	4	S	BTC	60n	25n	575m	0.0	5.5	85	2.0	15m	45	0	7	A3	ML10a	
24	C3101ADM	16	4	S	BTD	17n	25n	500m	0.0	5.0	70	2.0	3.6m	30	5	C		MO	
25	AM27S02DC	16	4	S	BTD	22n	35n	525m	0.0	5.0	80	2.0	16m	45	0	7	A131	ML62	
26	AM27S02DM	16	4	S	BTD	22n	35n	525m	0.0	5.0	80	2.0	16m	45	5	C	A131	ML62	
27	AM27S02FM	16	4	S	BTD	22n	35n	525m	0.0	5.0	80	2.0	16m	45	5	C	A131	ML62	
28	AM27S02PC	16	4	S	BTD	22n	35n	525m	0.0	5.0	80	2.0	16m	45	0	7	A131	ML62	
29	AM27S03DC	16	4	S	BTD	22n	35n	625m	0.0	5.0	80	2.0	16m	45	0	7	A131	ML62	
30	AM27S03DM	16	4	S	BTD	22n	35n	625m	0.0	5.0	80	2.0	16m	45	5	C	A131	ML62	
31	AM27S03FM	16	4	S	BTD	22n	35n	625m	0.0	5.0	80	2.0	16m	45	5	C	A131	ML62	
32	AM27S03PC	16	4	S	BTD	22n	35n	625m	0.0	5.0	80	2.0	16m	45	0	7	A131	ML62	
33	AM3101ADC	16	4	S	BTD	22n	95n	525m	0.0	5.0	80	2.0	16m	45	0	7	A131	ML62	
34	AM3101AFM	16	4	S	BTD	22n	95n	525m	0.0	5.0	80	2.0	16m	45	5	C	A131	FL33	
35	AM3101APC	16	4	S	BTD	22n	95n	525m	0.0	5.0	80	2.0	16m	45	0	7	A131	ML89a	
36	3101E	16	4	S	BTD	30n	25n	525m	0.0	5.0	85	1.8	16m	45	0	7	A133	ML62	
37	31013E	16	4	S	BTD	30n	25n	525m	0.0	5.0	90	1.7	16m	45	5	C	A133	ML62	
38	6560D	16	4	S	BTD	35n	25n	350m	0.0	5.0	80	2.0	15m	50	0	7	A155	ML158	
39	6560N	16	4	S	BTD	35n	25n	350m	0.0	5.0	80	2.0	15m	50	0	7	A155	ML157	
40	6561D	16	4	S	BTD	35n	25n	375m	0.0	5.0	80	2.0	15m	50	0	7	A155	ML158	
41	6561N	16	4	S	BTD	35n	25n	375m	0.0	5.0	80	2.0	15m	50	0	7	A155	ML157	
42	C3101A	16	4	S	BTD	35n	25n	525m	0.0	5.0	80	2.0	16m	45	0	7	A131	ML62a	
43	D3101A	16	4	S	BTD	35n	25n	551m	0.0	5.0	85	2.0	15m	45	0	7	A4	ML127a	
44	P3101A	16	4	S	BTD	35n	25n	551m	0.0	5.0	85	2.0	15m	45	0	7	A4	ML2d	
45#	SFC80101AK	16	4	S	BTD	35n	25n	525m	0.0	5.0	85	2.0	15m	45	0	8	A4	ML139	
46	SN74S189J	16	4	S	BTD	35n	25n	578m	0.0	5.0	80	2.0	16m	45	0	7	A4	ML61a	
47	SN74S189N	16	4	S	BTD	35n	25n	578m	0.0	5.0	80	2.0	16m	45	0	7	A4	ML48	
48	SN74S289J	16	4	S	BTD	35n	25n	551m	0.0	5.0	80	2.0	16m	45	0	7	A4	ML61a	
49	SN74S289N	16	4	S	BTD	35n	25n	551m	0.0	5.0	80	2.0	16m	45	0	7	A4	ML48	
50	T54S89J	16	4	S	BTD	35n	40n	375m	0.0	5.0	80	2.0	20m	50	5	C	A99a	TO116	
51	T74S89J	16	4	S	BTD	35n	40n	375m	0.0	5.0	80	2.0	20m	50	0	7	A99a	TO116	
52	AM31013	16	4	S	BTD	50n	40n	500m	0.0	5.0	90	1.7	16m	45	5	C		MO	
53	SN54S189J	16	4	S	BTD	50n	25n	605m	0.0	5.0	80	2.0	16m	50	5	C	A4	ML61a	
54	SN54S189W	16	4	S	BTD	50n	25n	605m	0.0	5.0	80	2.0	16m	50	5	C	A4	MO004AG	
55	SN54S289J	16	4	S	BTD	50n	25n	605m	0.0	5.0	80	2.0	16m	50	5	C	A4	ML61a	
56	SN54S289W	16	4	S	BTD	50n	25n	605m	0.0	5.0	80	2.0	16m	50	5	C	A4	MO004AG	
57	5560D	16	4	S	BTD	60n	40n	350m	0.0	5.0	80	2.0	15m	50	5	C	A155	ML158	
58	5560N	16	4	S	BTD	60n	40n	350m	0.0	5.0	80	2.0	15m	50	5	C	A155	ML157	
59	5561D	16	4	S	BTD	60n	40n	375m	0.0	5.0	80	2.0	15m	50	5	C	A155	ML158	
60	5561N	16	4	S	BTD	60n	40n	375m	0.0	5.0	80	2.0	15m	50	5	C	A155	ML157	
61	93403DM	16	4	S	BTD	60n	40n	525m	0.0	5.0	80	2.0	16m	45	5	C	A132	ML62c	
62	93403FM	16	4	S	BTD	60n	40n	525m	0.0	5.0	80	2.0	16m	45	5	C	A132	FL33	
63	93403PC	16	4	S	BTD	60n	40n	525m	0.0	5.0	80	2.0	16m	45	0	7	A132	ML89a	
64	AM3101FM	16	4	S	BTD	60n	40n	525m	0.0	5.0	80	2.0	16m	45	5	C	A132	FL33	
65	C3101	16	4	S	BTD	60n	40n	525m	0.0	5.0	80	2.0	16m	45	0	7	A132	ML62c	
66	C31013	16	4	S	BTD	60n	40n	525m	0.0	5.0	80	2.0	16m	45	5	C	A132	ML62c	
67	D3101	16	4	S	BTD	60n	40n	551m	0.0	5.0	85	2.0	15m	45	0	7	A4	ML	

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1)No.WORDS(2)No.BITS/WORD
(3)MODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	6	TYPE No.	ORGANIZATION		3	4	5	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN	INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT @ OUT (V)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
			1	2							MAX '0' (V)	MIN '1' (V)				LOGIC/ BLOCK	OUTLINE	
																		No. WORDS
1	L6561D	16	4	S	BTX	80n	80n	125m	0.0	5.0	80	2.0	4.8m	50	0 7	A155	ML158	
2	L6561N	16	4	S	BTX	80n	80n	125m	0.0	5.0	80	2.0	4.8m	50	0 7	A155	ML157	
3	L5560D	16	4	S	BTX	100n	100n	125m	0.0	5.0	80	2.0	4.8m	50	5 C	A155	ML158	
4	L5560N	16	4	S	BTX	100n	100n	125m	0.0	5.0	80	2.0	4.8m	50	5 C	A155	ML157	
5	L5561D	16	4	S	BTX	100n	100n	125m	0.0	5.0	80	2.0	4.8m	50	5 C	A155	ML158	
6	L5561N	16	4	S	BTX	100n	100n	125m	0.0	5.0	80	2.0	4.8m	50	5 C	A155	ML157	
7	AM31L01DC	16	4	S	BXD	70n	100n	175m	0.0	5.0	70	2.0	4.8m	40	0 7	A132	ML62	
8	5584	16	4	S	BXX	60n	45n	1.0	0.0	5.0	85	2.0	100u	5.5	0 7			
9	MM54C89D	16	4	S	MCX	280n	100n	500m	0.0	10	80	3.0	1.7m	5.0	5 C	A182	ML177	
10	MM74C89N	16	4	S	MCX	280n	100n	500m	0.0	10	80	3.0	1.7m	5.0	0 7	A182	ML178	
11	CRC4001-1-3	16	4	S	MPX	400n	100n	4.0m	27	0.0	-2.0	-9.0	10u	15	0 7	A19	ML6	
12	CRC4001-2-3	16	4	S	MPX	400n	100n	4.0m	27	0.0	-2.0	-9.0	10u	15	0 7	A19	FL5	
13	TL1170L	16	4	S	MPX	550n	500n		15	0.0	0.0	-1.1	1.0m		0 7	A8	ML6	
14	5588#1	16	16	S	BXX	60n	45n	2.0	0.0	5.0	85	2.0	100u	5.5	0 7			
15	N82521	32	2	S	BTX	25n	25n		0.0	5.0	2.0	85	40m	5.0	0 7	A92	ML	
16	5587#1	32	2	S	BTX	28n	30n	1.6	0.0	5.0	80	2.0			0 7			
17	85100111	32	8	S	BEX	15n	10n	9.4	5.2	0.0	-1.3	-1.0	25m		0 7		PL1	
18	5588#2	32	8	S	BXX	60n	45n	2.0	0.0	5.0	85	2.0	100u	5.5	0 7			
19	85100211	32	9	S	BEX	15n	10n	1.0	5.2	0.0	-1.3	-1.0	25m		0 7	A11	PL1	
20	91100211	64	1	S	BEX	7.0n	7.0n	5.0m	6.5	0.0	-1.61	-4.0	25m		0 7	A13	T0116	
21	MCM10142AL	64	1	S	BEX	10n	10n	420m	5.2	0.0	-1.6	-96	40m		3 8	A126	ML98	
22	SN10142JE	64	1	S	BEX	10n	10n	520m	5.2	0.0	-1.6	-98			0 8	A177	ML140b	
23	SN81002	64	1	S	BEX	10n	7.0n	60m	5.2	0.0	-1.5	-1.0			0 7	A94	ML125	
24	MCM10140L	64	1	S	BEX	12n	18n	520m	5.2	0.0	-1.6	-89			3 8	A126	ML60b	
25	MCM10142L	64	1	S	BEX	12n	18n	520m	5.2	0.0	-1.6	-89			3 8	A126	ML60b	
26	MCM10148L	64	1	S	BEX	12n	18n	520m	5.2	0.0	-1.6	-89			3 8	A126	ML60b	
27	10140F	64	1	S	BEX	15n			5.2	0.0	-1.6	-96			3 8	A175		
28	10148F	64	1	S	BEX	15n			5.2	0.0	-1.6	-96			3 8	A175		
29	10151F	64	1	S	BEX	15n			5.2	0.0	-1.6	-96			3 8	A175		
30	MCM10140AL	64	1	S	BEX	15n	10n	420m	5.2	0.0	-1.6	-96	40m		3 8	A126	ML98	
31	MCM10148AL	64	1	S	BEX	15n	10n	420m	5.2	0.0	-1.6	-96	40m		3 8	A126	ML98	
32	SN10140JE	64	1	S	BEX	15n	10n	520m	5.2	0.0	-1.6	-98			0 8	A177	ML140b	
33	SN10148JE	64	1	S	BEX	15n	10n	520m	5.2	0.0	-1.6	-98			0 8	A177	ML140b	
34	MCM14505AL	64	1	S	MCX	270n	400n	30m	0.0	10	0.05	9.95	500u	50	5 C	A66	ML66	
35	MCM14505CL	64	1	S	MCX	350n	550n	30m	0.0	10	0.05	9.95	400u	50	4 8	A66	ML66	
36	MCM14505CP	64	1	S	MCX	350n	550n	30m	0.0	10	0.05	9.95	400u	50	4 8	A66	ML124	
37	CRC4002-1-2	64	2	S	MPX	100n		150m	0.0	12	10*	2.0			2 8		ML7	
38	CRC4002-2-2	64	2	S	MPX	100n		150m	0.0	12	10*	2.0			2 8		FL3	
39	UA2564D	64	4	D	MPA	900n		160m	5.0	5.0	80	2.6	3.5m	2.4	50k	5 C	A43	ML26
40	UA2564F	64	4	D	MPA	900n		160m	5.0	5.0	80	2.6	3.5m	2.4	50k	5 C	A43	FL7a
41	UA2764D	64	4	D	MPA	900n		160m	5.0	5.0	80	2.6	3.5m	2.4	50k	5 C	A44	ML26
42	UA3564D	64	4	D	MPA	900n		160m	5.0	5.0	80	2.6	3.5m	2.4	50k	2 7	A43	ML26
43	UA3564F	64	4	D	MPA	900n		160m	5.0	5.0	80	2.6	3.5m	2.4	50k	2 7	A43	FL7a
44	UA3764D	64	4	D	MPA	900n		160m	5.0	5.0	80	2.6	3.5m	2.4	50k	2 7	A44	ML26
45	UC6550D	64	4	D	MPA	900n		160m	5.0	5.0	60	2.7	3.5m	2.4	50k	5 C	A41a	ML24
46	UC6550F	64	4	D	MPA	900n		160m	5.0	5.0	60	2.7	3.5m	2.4	50k	5 C	A41	FL7a
47	UC7550D	64	4	D	MPA	900n		160m	5.0	5.0	60	2.7	3.5m	2.4	50k	2 7	A41a	ML24
48	UC7550F	64	4	D	MPA	900n		160m	5.0	5.0	60	2.7	3.5m	2.4	50k	2 7	A41	FL7a
49	5588#3	64	4	S	BXX	60n	45n	2.0	0.0	5.0	85	2.0	100u	5.5	0 7			
50	SCL5555D	64	4	S	MCA	145n	100n	200m	0.0	10	1.0	9.9	500u	50	5 C	A90	ML105	
51	MCM14552AL	64	4	S	MCX	1.0n	1.1n	36m	0.0	10	0.05	9.95	650u	50	5 C	A166	ML95a	
52	MCM14552CL	64	4	S	MCX	2.1n	2.2n	100m	0.0	10	0.05	9.95	400u	50	4 8	A166	ML95a	
53	MCM14552CP	64	4	S	MCX	2.1n	2.2n	100m	0.0	10	0.05	9.95	400u	50	4 8	A166	ML95a	
54	UA2664D	64	4	S	MPA	1.0u	400n	480m	5.0	5.0	80	2.4	3.2m	2.8	5 C	A43	ML26	
55	UA2864D	64	4	S	MPA	1.0u	400n	480m	5.0	5.0	80	2.4	3.2m	2.8	5 C	A44	ML26	
56	UA3664D	64	4	S	MPA	1.0u	400n	480m	5.0	5.0	80	2.4	3.2m	2.8	2 7	A43	ML26	
57	UA3864D	64	4	S	MPA	1.0u	400n	480m	5.0	5.0	80	2.4	3.2m	2.8	2 7	A44	ML26	
58	CRC4003-1-2	64	4	S	MPX	100n		300m	0.0	12	10*	2.0			2 8		ML13	
59	CRC4003-2-2	64	4	S	MPX	100n		300m	0.0	12	10*	2.0			2 8		FL4	
60	TMS4024JC	64	9	S	MPA	2.0u	4.0u	180m	0.0	5.0	30	1.5	1.6m	40	2 8	A137	MP	
61	TMS4024NC	64	9	S	MPA	2.0u	4.0u	180m	0.0	5.0	30	1.5	1.6m	40	2 8	A137	MP	
62	MCM10147AL	128	1	S	BEX	12n	8.0n	415m	5.2	0.0	-1.6	-96	30m		3 8	A136	ML98	
63	10405DC	128	1	S	BEX	15n	11n	468m	5.2	0.0	-1.4	-1.1	30m		0 7	A128a	ML98a	
64	91100311	128	1	S	BEX	15n	8.0n	3.2m	5.5	0.0	-1.4	-1.1	50m		0 7	A15	ML	
65	SN10147JE	128	1	S	BEX	15n	10n	520m	5.2	0.0	-1.6	-98			0 8	A180	ML140b	
66	91150311	128	1	S	BTX	25n	8.0n	3.2m	5.5	0.0	4.0	2.0	50m		0 7	A17		
67	85100311	128	8	S	BEX	17n	15n	12	6.0	0.0	-1.6	-1.0	20m		0 7		PL1	
68	MCM6810L1	128	8	S	MNG	575n	500n	650m	0.0	5.0	4.0	2.4	1.6m	40	0 7		ML150	
69	MCM6810L2	128	8	S	MNG	1.0u	1.0u	650m	0.0	5.0	4.0	2.4	1.6m	40	0 7		ML150	
70	85100411	128	9	S	BEX	17n	15n	13	6.0	0.0	-1.4	-1.0	20m		0 7	A16	PL1	
71	GXB95410	256</																

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1)No.WORDS(2)No.BITS/WORD
(3)MODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	6	TYPE No.	ORGANIZATION				MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
			1 No. WORDS	2 BITS PER WORD	3 MODE	4 STRUCTURE CODE				NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)	@ OUT (V)			LOGIC/BLOCK	OUTLINE
1		SN74S301J	256	1	S	BTD	65ns	65n	735m	0.0	5.0	.80	2.0s	16m	.45	0	7	A115	ML61a
2		SN74S301N	256	1	S	BTD	65ns	65n	735m	0.0	5.0	.80	2.0s	16m	.45	0	7	A115	ML48
3		5530	256	1	S	BTD	70n	65ns	675m	0.0	5.0	.85	2.0	10m	.50	5	C	A154	ML158
4		5530N	256	1	S	BTD	70n	65ns	675m	0.0	5.0	.85	2.0	10m	.50	5	C	A154	ML157
5		5531	256	1	S	BTD	70n	65ns	675m	0.0	5.0	.85	2.0s	10m	.50	5	C	A154	ML158
6		5531N	256	1	S	BTD	70n	65ns	675m	0.0	5.0	.85	2.0s	10m	.50	5	C	A154	ML157
7		C3102	256	1	S	BTD	80n	90n	625m	0.0	5.0	.85	2.0	15m	.45	0	7	A5	ML10b
8		C3106	256	1	S	BTD	80n	60ns	682m	0.0	5.0	.85	2.0s	15m	.45	0	7	A63	ML10c
9		C3107	256	1	S	BTD	80n	60ns	682m	0.0	5.0	.85	2.0	15m	.45	0	7	A63	ML10c
10		P3102	256	1	S	BTD	80n	90n	625m	0.0	5.0	.85	2.0	15m	.45	0	7	A5	ML2d
11		P3106	256	1	S	BTD	80n	60ns	682m	0.0	5.0	.85	2.0s	15m	.45	0	7	A63	ML2d
12		P3107	256	1	S	BTD	80n	60ns	682m	0.0	5.0	.85	2.0	15m	.45	0	7	A63	ML2d
13		SN54S201J	256	1	S	BTD	85n	100n	632m	0.0	5.0	.80	2.0s	16m	.50	5	C	A115	ML61a
14		SN54S201W	256	1	S	BTD	85ns	100n	632m	0.0	5.0	.80	2.0s	16m	.50	5	C	A115	MO004AG
15		SN54S301J	256	1	S	BTD	85ns	100n	605m	0.0	5.0	.80	2.0s	16m	.50	5	C	A115	ML61a
16		SN54S301W	256	1	S	BTD	85ns	100n	605m	0.0	5.0	.80	2.0s	16m	.50	5	C	A115	MO004AG
17		L6530	256	1	S	BTD	115n	85ns	275m	0.0	5.0	.80	2.0	15m	.50	0	7	A154	ML158
18		L6530N	256	1	S	BTD	115n	85ns	275m	0.0	5.0	.80	2.0	15m	.50	0	7	A154	ML157
19		L6531	256	1	S	BTD	115n	85ns	275m	0.0	5.0	.80	2.0s	15m	.50	0	7	A154	ML158
20		L6531N	256	1	S	BTD	115n	85ns	275m	0.0	5.0	.80	2.0s	15m	.50	0	7	A154	ML157
21		L5530	256	1	S	BTD	130n	100ns	275m	0.0	5.0	.80	2.0	10m	.50	5	C	A154	ML158
22		L5530N	256	1	S	BTD	130n	100ns	275m	0.0	5.0	.80	2.0	10m	.50	5	C	A154	ML157
23		L5531	256	1	S	BTD	130n	100ns	275m	0.0	5.0	.80	2.0s	10m	.50	5	C	A154	ML158
24		L5531N	256	1	S	BTD	130n	100ns	275m	0.0	5.0	.80	2.0s	10m	.50	5	C	A154	ML157
25		N82S061	256	1	S	BTX	30n	30n	1.5m	0.0	5.0	2.0	.85	16m	.50	0	7	A76	ML107
26		N82S071	256	1	S	BTX	30n	30n	1.5m	0.0	5.0	2.0	.85	16m	.50	0	7	A76	ML107
27		T74S200J	256	1	S	BTX	35n	40n	450m	0.0	5.0	.80	2.0	12m	.40	0	7	A91	ML48
28		RC5330M	256	1	S	BTX	40n	40n	250m	0.0	5.0	.80	2.0	16m	.45	0	7	A161	ML141
29		RC5330MP	256	1	S	BTX	40n	40n	250m	0.0	5.0	.80	2.0	16m	.45	0	7	A161	ML169
30		RC5340M	256	1	S	BTX	40n	40n	250m	0.0	5.0	.80	2.0s	16m	.45	0	7	A161	ML141
31		RC5340MP	256	1	S	BTX	40n	40n	250m	0.0	5.0	.80	2.0s	16m	.45	0	7	A161	ML169
32		RM5330L	256	1	S	BTX	40n	40n	250m	0.0	5.0	.80	2.0	16m	.45	5	C	A161	FL25
33		RM5330M	256	1	S	BTX	40n	40n	250m	0.0	5.0	.80	2.0	16m	.45	5	C	A161	ML141
34		RM5340L	256	1	S	BTX	40n	40n	250m	0.0	5.0	.80	2.0s	16m	.45	5	C	A161	FL25
35		RM5340M	256	1	S	BTX	40n	40n	250m	0.0	5.0	.80	2.0s	16m	.45	5	C	A161	ML141
36		SN74200D	256	1	S	BTX	40n	25n	2.0m	0.0	5.0	.80	2.0s	24m	.40	0	7	A117	ML62b
37		SN74200N	256	1	S	BTX	42n	40n	1.8m	0.0	5.0	.80	2.0s	12m	.40	0	7	A91	ML48
38		93410ADC	256	1	S	BTX	45n	20n	700m	0.0	5.0	.85	2.0	16m	.45	0	7	A150b	ML102
39		93421DC	256	1	S	BTX	50n	10n	675m	0.0	5.0	.85	2.0s	16m	.45	0	7	A153	ML98a
40		DM8582D	256	1	S	BTX	50n	25n	2.0m	0.0	5.0	.80	2.0s	24m	.40	0	7	A117	ML62b
41		DM8582N	256	1	S	BTX	50n	25n	2.0m	0.0	5.0	.80	2.0s	24m	.40	0	7	A117	ML2e
42		93411DC	256	1	S	BTX	55n	25n	675m	0.0	5.0	.85	2.0	16m	.45	0	7	A150a	ML102
43		93410DC	256	1	S	BTX	60n	25n	700m	0.0	5.0	.85	2.0	16m	.45	0	7	A150b	ML102
44		93410PC	256	1	S	BTX	60n	25n	700m	0.0	5.0	.85	2.0	16m	.45	0	7	A150b	ML15a
45		93421DM	256	1	S	BTX	60n	10n	715m	0.0	5.0	.85	2.0s	16m	.45	5	C	A153	ML98a
46		IM5503ACDE	256	1	S	BTX	60n	35n	625m	0.0	5.0	.80	2.0	16m	.45	0	7	A30	ML1a
47		IM5503ACPE	256	1	S	BTX	60n	35n	625m	0.0	5.0	.80	2.0	16m	.45	0	7	A30	ML2g
48		IM5523ACDE	256	1	S	BTX	60n	35n	625m	0.0	5.0	.80	2.0	16m	.45	0	7	A30	ML1a
49		IM5523ACPE	256	1	S	BTX	60n	35n	625m	0.0	5.0	.80	2.0	16m	.45	0	7	A30	ML2g
50		IM5533ACDE	256	1	S	BTX	60n	35n	625m	0.0	5.0	.80	2.0	16m	.45	0	7	A30	ML1a
51		IM5533ACPE	256	1	S	BTX	60n	35n	625m	0.0	5.0	.80	2.0	16m	.45	0	7	A30	ML2g
52		N82S16	256	1	S	BTX	60n	20n	1.5m	0.0	5.0	.85	2.0s			0	7	A174	
53		N82S17	256	1	S	BTX	60n	20n	1.5m	0.0	5.0	.85	2.0			0	7	A174	
54		93410DM	256	1	S	BTX	70n	25n	725m	0.0	5.0	.85	2.0	16m	.45	5	C	A150b	ML102
55		93410FM	256	1	S	BTX	70n	25n	725m	0.0	5.0	.85	2.0	16m	.45	5	C	A150b	FL14
56		AM270059E	256	1	S	BTX	70n	60n	675m	0.0	5.0	.80	2.0s	16m	.40	0	7	A130	ML62c
57		AM270059F	256	1	S	BTX	70n	60n	675m	0.0	5.0	.80	2.0s	16m	.40	0	7	A130	FL33
58		AM270159E	256	1	S	BTX	70n	60n	675m	0.0	5.0	.80	2.0	16m	.40	0	7	A130	ML62c
59		AM270159F	256	1	S	BTX	70n	60n	675m	0.0	5.0	.80	2.0	16m	.40	0	7	A130	FL33
60		IM5503AMDE	256	1	S	BTX	70n	40n	700m	0.0	5.0	.80	2.0	16m	.45	5	C	A30	ML1a
61		IM5503AMFE	256	1	S	BTX	70n	40n	700m	0.0	5.0	.80	2.0	16m	.45	5	C	A30	FL27
62		IM5523AMDE	256	1	S	BTX	70n	40n	700m	0.0	5.0	.80	2.0	16m	.45	5	C	A30	ML1a
63		IM5523AMFE	256	1	S	BTX	70n	40n	700m	0.0	5.0	.80	2.0	16m	.45	5	C	A30	FL27
64		IM5533AMDE	256	1	S	BTX	70n	40n	700m	0.0	5.0	.80	2.0	16m	.45	5	C	A30	ML1a
65		IM5533AMFE	256	1	S	BTX	70n	40n	700m</										

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1)No.WORDS(2)No.BITS/WORD
(3)MODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	TYPE No.	ORGANIZATION		M STRUCTURE	MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS			
		No. WORDS	2 BITS PER WORD					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)	@ (V)			LOGIC/BLOCK	OUTLINE		
1	N25L011	256	1	S	MPG	1.0u	400n	800m	12	5.0	50	3.0	3.0m	45	0	7	A1	ML107	
2	P1101A1	256	1	S	MPG	1.0u	800n	700m	9.0	5.0	50	4.0	2.0m	45	0	7	A1	ML10c	
3	RA9-1101A1#1	256	1	S	MPG	1.0u	800n	1.0	9.0	5.0	50	3.0	2.0m	45	0	7	A1	ML65	
4	RA9-1101A1#2	256	1	S	MPG	1.0u	800n	1.0	9.0	5.0	50	3.0	2.0m	45	0	7	A1		
5	1101ADM	256	1	S	MPG	1.5u	800n	700m	9.0	5.0	50	4.0	1.8m	45	5	C	A1	ML10c	
6	C1101A51	256	1	S	MPG	1.5u	400n	400m	9.0	5.0	30	4.5	2.0	45	0	7		MO	
7	C1101A	256	1	S	MPG	1.5u	800n	700m	9.0	5.0	50	3.0	2.0m	45	0	7	A1	ML10c	
8	IM7501CDE	256	1	S	MPG	1.5u	400n	600m	7.0	5.0	50	3.3	200u	3.5	0	7	A1	ML4b	
9	IM7501MDE	256	1	S	MPG	1.5u	400n	500m	7.0	5.0	50	3.3	200u	3.5	5	C	A1	ML4b	
10	IM7512CDE	256	1	S	MPG	1.5u	400n	600m	7.0	5.0	50	3.3	200u	3.5	0	7	A1	ML4b	
11#	M58531P	256	1	S	MPG	1.5u	800n	700m	9.0	5.0	50	3.0	2.0m	45	0	7	A1	ML94b	
12#	MF1101A#1	256	1	S	MPG	1.5u	800n	700m	9.0	5.0	50	3.0	2.0m	45	0	8	A1	ML2a	
13#	MF1101A#2	256	1	S	MPG	1.5u	800n	700m	9.0	5.0	50	3.0	2.0m	45	0	8	A1	ML10a	
14	MM1101AD	256	1	S	MPG	1.5u	800n	700m	9.0	5.0	80	3.0			2	7	A102	ML	
15	MM1101AN	256	1	S	MPG	1.5u	800n	700m	9.0	5.0	80	3.0			2	7	A102	ML2e	
16	MM1101D	256	1	S	MPG	1.5u	800n	700m	7.0	5.0	80	3.0			2	7	A102	ML	
17	MM1101N	256	1	S	MPG	1.5u	800n	700m	7.0	5.0	80	3.0			2	7	A102	ML2e	
18	P1101A	256	1	S	MPG	1.5u	800n	700m	9.0	5.0	50	4.0	2.0m	45	0	7	A1	ML10c	
19	RA9-1101A#1	256	1	S	MPG	1.5u	800n	1.0	9.0	5.0	0.5	3.0	2.0m	45	0	7	A1	ML65	
20	RA9-1101A#2	256	1	S	MPG	1.5u	800n	1.0	9.0	5.0	0.5	3.0	2.0m	45	0	7	A1		
21	IM7512MDE	256	1	S	MPG	1.8u	400n	500m	7.0	5.0	50	3.3	200u	3.5	5	C	A1	ML4b	
22	MK4007-4P	256	1	S	MPI	1.0u	700n	250m	9.0	5.0	80	-2.0	3.0m	40	0	7	A36	ML22	
23	MK4007P	256	1	S	MPI	1.0u	700n	250m	9.0	5.0	80	-2.0	3.2m	40	0	7	A36	ML22	
24#	#GZF1400	256	1	S	MPX	200n	200n	100u	0.0	10	3.0	7.0	1.6m	0.4	3	8	A	A171	
25	RA3-4256	256	4	S	MNI	1.0u	1.0u	300mt	0.0	5.0	65	2.2	1.6m	45	0	7	A181		
26	ASM30#1	256	9	S	MPX	300n	300n	35	0.0	5.0	60	2.5	1.6m	40	0	5			
27	ASM10#1	256	9	S	MPX	1.9u	1.4u	6.8	8.0	5.0	80	2.0	1.6m	40	0	5			
28	RM53L	512	1	D	MNG	365n	140n	7.5mt	0.0	13	13	0.0			0	7	A61	ML23a	
29	S2222	512	1	S	MCG	350n	420n	230mt	0.0	10	60	9.4	1.0m	45	0	7	A143	ML153	
30	3532-9A-7K	512	1	S	MPG	550n	600n	230mt	3.0	5.0	80	4.0	9.0m	40	0	7	A95	ML102	
31	3532-9B-7K	512	1	S	MPG	550n	1.0u	230mt	3.0	5.0	80	4.0	9.0m	40	0	7	A95	ML102	
32	85100511	512	8	S	BEX	25n	25n	25n	6.0	0.0	-1.4	-1.0	20m		0	5	A12	PL2	
33	85100811	512	9	S	BEX	25n	25n	25n	6.0	0.0	-1.4	-1.0	20m		0	5	A12	PL2	
34	ASM30#2	512	9	S	MPX	300n	300n	35	0.0	5.0	60	2.5	1.6m	40	0	5			
35	ASM10#2	512	9	S	MPX	1.9u	1.4u	6.8	8.0	5.0	80	2.0	1.6m	40	0	5			
36#	EA1500A#1	1024	1	D	MNG	60n	240n	220m	15	15	80	14.2	900u		0	6	A101	ML115	
37#	EA1500A#2	1024	1	D	MNG	60n	240n	220m	15	15	80	14.2	900u		0	6	A101	ML165	
38#	HAB1500	1024	1	D	MNG	85n	330n	220m	15	15	80	14.2	900u		0	7	A101	ML115	
39#	EA1500A1#1	1024	1	D	MNG	120n	470n	220m	15	15	80	14.2	900u		0	6	A101	ML115	
40#	EA1500A1#2	1024	1	D	MNG	120n	470n	220m	15	15	80	14.2	900u		0	6	A101	ML165	
41#	HAB1501	1024	1	D	MNG	150n	450n	120m	12	12	80	11.4	900u		500	7	A101	ML115	
42	EA1502	1024	1	D	MNG	200n	450n	165m	12	12	80	11.4	1.6m	40	500	0	7	A129	ML115
43#	HAB1502	1024	1	D	MNG	200n	450n	165m	12	12	80	3.0	1.6m	40	500	0	7		
44	TMS4062JL	1024	1	D	MPA	130n	200n	120m	0.0	20	2.0	18	2.0u	500	0	7	A69	MP	
45	TMS4062NL	1024	1	D	MPA	130n	200n	120m	0.0	20	2.0	18	2.0u	500	0	7	A69	MP	
46	TMS4063JL	1024	1	D	MPA	130n	200n	120m	0.0	20	2.0	18	2.0u	500	0	7	A69	MP	
47	TMS4063NL	1024	1	D	MPA	130n	200n	120m	0.0	20	2.0	18	2.0u	500	0	7	A69	MP	
48	1103-1IK	1024	1	D	MPG	150n	340n	1.0	0.0	19	1.0	18	1.0u	0.0	1.0k	0	5	A2	ML134
49	1103-1XA	1024	1	D	MPG	150n	340n	1.0	0.0	19	1.0	18	1.0u	0.0	1.0k	0	5	A2	ML131
50	C1103-1	1024	1	D	MPG	150n	340n	1.0	0.0	19	1.0	18	1.0u	0.0	500	0	7	A2	ML147
51#	GYQ131	1024	1	D	MPG	150n	315n	379m	0.0	19	1.5	18.1	1.0u	0.0	0	5	A169	ML115	
52#	MF1103-1#1	1024	1	D	MPG	150n	340n	1.0	0.0	19	1.0	18	1.1m	0.115	1.0k	0	5	A2	ML3
53#	MF1103-1#2	1024	1	D	MPG	150n	340n	1.0	0.0	19	1.0	18	1.1m	0.115	1.0k	0	5	A2	ML25
54	P1103-1	1024	1	D	MPG	150n	340n	1.0	0.0	19	1.0	18	1.0u	0.0	500	0	7	A2	ML3
55	RA9-1103E	1024	1	D	MPG	150n	340n	1.0	0.0	22	-1.0	23.5	600u	0.06	0	5	A98	ML112	
56#	S1103-1	1024	1	D	MPG	150n	360n	550mt	0.0	19	0.80	0.085	800u	0.085	0	5	A164	ML152	
57	S1303	1024	1	D	MPG	150n	360n	550mt	0.0	19	1.0	18	1.0u	0.0	500	0	7	A62	ML152
58#	S146	1024	1	D	MPG	205n	390n	550mt	0.0	19	0.80	0.085	800u	0.085	0	5	A164	ML152	
59	S2146	1024	1	D	MPG	205n	390n	550mt	0.0	19	1.0	18	1.0u	0.0	500	0	7	A62	ML152
60	RA9-1103D	1024	1	D	MPG	220n	390n	1.0	0.0	22	-1.0	23.5	600u	0.06	0	5	A98	ML112	
61	2508XC	1024	1	D	MPG	270n	480n	730m	12	5.0	80	4.0	2.7m	-1.0	500	0	7	A77	ML77
62#	1103IK	1024	1	D	MPG	300n	580n	1.0	0.0	16	-1.5	-1.0	-1.0		0	7	A2	ML134	
63#	1103XA	1024	1	D	MPG	300n	580n	1.0	0.0	16	-1.5	-1.0	-1.0		0	7	A2	ML172	
64	3534-9-7T	1024	1	D	MPG	300n	480n	1.0	0.0	16	1.8	1.5	1.0u	0.0	500	0	7	A96	ML25a
65	C1103	1024	1	D	MPG	300n	58												

2. READ-WRITE MEMORIES (RAMS)

IN ORDER OF (1)No.WORDS(2)No.BITS/WORD
(3)MODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	TYPE No.	ORGANIZATION		3	4	5	MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT (A)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
		1	2							NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)				LOGIC/BLOCK	OUTLINE	
																			No. WORDS
1▼	93L415CC	1024	1	S	BTX	75n	75n	175m	0.0	5.0	.80	2.1	8.0m	.50	0	7	A97	ML15a	
2▼	93L415DC	1024	1	S	BTX	75n	75n	175m	0.0	5.0	.80	2.1	8.0m	.50	0	7	A97	ML98a	
3▼	93L415FC	1024	1	S	BTX	75n	75n	175m	0.0	5.0	.80	2.1	8.0m	.50	0	7	A97	FL14	
4▼	93L415PC	1024	1	S	BTX	75n	75n	175m	0.0	5.0	.80	2.1	8.0m	.50	0	7	A97	ML170	
5♦	93415DM	1024	1	S	BTX	75n	25n	850m	0.0	5.0	.80	2.1	16m	.45	5	C	A97	ML98a	
6▼	93415FM	1024	1	S	BTX	75n	25n	850m	0.0	5.0	.80	2.1	16m	.45	5	C	A97	FL14	
7▼	93425DM	1024	1	S	BTX	75n	25n	850m	0.0	5.0	.80	2.1	16m	.45	5	C	A163	ML98a	
8▼	93425FM	1024	1	S	BTX	75n	25n	850m	0.0	5.0	.80	2.1	16m	.45	5	C	A163	FL14	
9	IM5508CDE	1024	1	S	BTX	85n	35n	625m	0.0	5.0	.80	2.0	16m	.45	0	7	A78	ML1a	
10	IM5528CDE	1024	1	S	BTX	85n	35n	625m	0.0	5.0	.80	2.0	16m	.45	0	7	A78	ML1a	
11	IM5508MDE	1024	1	S	BTX	100n	40n	625m	0.0	5.0	.80	2.0	16m	.45	5	C	A78	ML1a	
12	IM5528MDE	1024	1	S	BTX	100n	40n	625m	0.0	5.0	.80	2.0	16m	.45	5	C	A78	ML1a	
13▼#	SIL1902	1024	1	S	MCA	800n	750n	1.5	0.0	5.0	.80	3.5	1.6m	.40	0	7	A185	MO001AF	
14	MCM7001L	1024	1	S	MNA	55n	180n	640u	0.0	15	.80	4.0	11m	4.0	0	7	A149	ML97	
15	1218C	1024	1	S	MNA	60n	180n	300m	3.5	15	1.0	4.0	200u		0	7	A149a	ML162	
16▼	MW7001ID	1024	1	S	MNA	60n	180n*	640u	0.0	15	.80	2.4			0	7	A162	ML156	
17	MCM7001L1	1024	1	S	MNA	75n	180n	640u	0.0	15	.80	4.0	11m	4.0	0	7	A149	ML97	
18	1218B	1024	1	S	MNA	80n	180n	300m	3.5	15	1.0	4.0	200u		0	7	A149a	ML162	
19	1217C	1024	1	S	MNA	90n	200n	300m	3.5	15	1.0	4.0	1.6m	.50	0	7	A149a	ML162	
20	1218A	1024	1	S	MNA	100n	225n	875m	3.5	15	1.0	4.0	200u		0	7	A149a	ML162	
21	1217B	1024	1	S	MNA	110n	250n	300m	3.5	15	1.0	4.0	1.6m	.50	0	7	A149a	ML162	
22	1218	1024	1	S	MNA	120n	275n	875m	3.5	15	1.0	4.0	200u		0	7	A149a	ML162	
23	1217A	1024	1	S	MNA	135n	300n	904m	3.5	15	1.0	4.0	1.6m	.50	0	7	A149a	ML162	
24	1217	1024	1	S	MNA	160n	375n	875m	3.5	15	1.0	4.0	1.6m	.50	0	7	A149a	ML162	
25	1216	1024	1	S	MNA	260n	675n*	715m	4.4	15	1.0	4.0	600u	.50	0	7	A149a	ML162	
26	AM9102BDC	1024	1	S	MNG	100n	400n*	260m	0.0	5.0	.80	2.0	3.2m	.40	0	7	A159	ML62c	
27	AM9102BPC	1024	1	S	MNG	100n	400n*	260m	0.0	5.0	.80	2.0	3.2m	.40	0	7	A159	ML89a	
28	AM9102ADC	1024	1	S	MNG	150n	500n*	260m	0.0	5.0	.80	2.0	3.2m	.40	0	7	A159	ML62c	
29	AM9102APC	1024	1	S	MNG	150n	500n*	260m	0.0	5.0	.80	2.0	3.2m	.40	0	7	A159	ML89a	
30	AM9102DC	1024	1	S	MNG	200n	650n*	260m	0.0	5.0	.80	2.0	3.2m	.40	0	7	A159	ML62c	
31	AM9102DM	1024	1	S	MNG	200n	650n*	260m	0.0	5.0	.80	2.0	3.2m	.40	5	C	A159	ML62c	
32	AM9102PC	1024	1	S	MNG	200n	650n*	260m	0.0	5.0	.80	2.0	3.2m	.40	0	7	A159	ML89a	
33	MK4102P-1	1024	1	S	MNG	450n	450n*	350m	0.0	5.0	.65	2.2	3.2m	.40	0	7	A109	ML22	
34	S3102A	1024	1	S	MNG	450n	450n*	1.0	0.0	5.0	.65	2.2	1.9m	.45	0	7	A88	ML153	
35	2602-1B	1024	1	S	MNG	500n	500n*	640m	0.0	5.0	.65	2.2	1.6m	.40	0	7	A109	ML132	
36	2602-1I	1024	1	S	MNG	500n	500n*	800m	0.0	5.0	.65	2.2	1.6m	.40	0	7	A109	ML107	
37	C2102-1	1024	1	S	MNG	500n	500n*	350m	0.0	5.0	.65	2.2	1.9m	.45	0	7	A158	ML1c	
38	IM7552-1CDE	1024	1	S	MNG	500n	500n*	300m	0.0	5.0	.80	2.2	3.2m	.45	0	7	A109	ML1a	
39	IM7552-1CPE	1024	1	S	MNG	500n	500n*	300m	0.0	5.0	.80	2.2	3.2m	.45	0	7	A109	ML2g	
40	IM7552-1MDE	1024	1	S	MNG	500n	500n*	300m	0.0	5.0	.80	2.2	3.2m	.45	5	C	A109	ML1a	
41#	MF2102	1024	1	S	MNG	500n	500n*	150m	0.0	5.0	.65	2.2	1.9m	.45	0	7	A118	ML2a	
42#	MF2102-1	1024	1	S	MNG	500n	500n*	150m	0.0	5.0	.65	2.2	1.9m	.45	0	7	A118	ML1b	
43	P2102-1	1024	1	S	MNG	500n	500n*	350m	0.0	5.0	.65	2.2	1.9m	.45	0	7	A158	ML89a	
44	C2102-2	1024	1	S	MNG	650n	650n*	350m	0.0	5.0	.65	2.2	1.9m	.45	0	7	A158	ML1c	
45	P2102-2	1024	1	S	MNG	650n	650n*	350m	0.0	5.0	.65	2.2	1.9m	.45	0	7	A158	ML89a	
46	S3102B	1024	1	S	MNG	650n	650n*	1.0	0.0	5.0	.65	2.2	1.9m	.45	0	7	A88	ML153	
47♦	2602B	1024	1	S	MNG	1.0u	1.0u*	640m	0.0	5.0	.65	2.2	1.9m	.45	0	7	F306	ML132	
48♦	2602I	1024	1	S	MNG	1.0u	1.0u*	800m	0.0	5.0	.65	2.2	1.9m	.45	0	7	F306	ML171	
49	C2102	1024	1	S	MNG	1.0u	1.0u*	350m	0.0	5.0	.65	2.2	1.9m	.45	0	7	A158	ML1c	
50	IM7552CDE	1024	1	S	MNG	1.0u	500n*	300m	0.0	5.0	.80	2.2	3.2m	.45	0	7	A109	ML1a	
51	IM7552CPE	1024	1	S	MNG	1.0u	500n*	300m	0.0	5.0	.80	2.2	3.2	.45	0	7	A109	ML2g	
52	IM7552MDE	1024	1	S	MNG	1.0u	500n*	300m	0.0	5.0	.80	2.2	3.2m	.45	5	C	A109	ML1a	
53	IM7552MPE	1024	1	S	MNG	1.0u	500n*	300m	0.0	5.0	.80	2.2	3.2m	.45	5	C	A109	ML2g	
54	MK4102P	1024	1	S	MNG	1.0u	1.0u*	350m	0.0	5.0	.65	2.2	3.2m	.40	0	7	A109	ML22	
55	P2102	1024	1	S	MNG	1.0u	1.0u*	350m	0.0	5.0	.65	2.2	1.9m	.45	0	7	A158	ML89a	
56	S3102	1024	1	S	MNG	1.0u	1.0u*	1.0	0.0	5.0	.65	2.2	1.9m	.45	0	7	A88	ML153	
57#	HM3503-1	1024	1	S	MON	150n	340n	1.0	0.0	19	.05	17	10uΔ	0.0	0	7	A2	ML121	
58	S4006	1024	1	S	MPI	400n	650n*	450m	12	5.0	.80	4.0	1.0m	0.0	0	7	A35	ML110	
59	S4006R	1024	1	S	MPI	400n	650n*	450m	12	5.0	.80	4.0	1.6m	.40	0	7	A35a	ML110	
60	ASM30#3	1024	9	S	MXX	300n	300n	35	0.0	5.0	.60	2.5	16m	.40	0	5			
61	RA9-2048	2048	1	D	MPG	250n*	400n*	150u%	20	5.0	-20	-1.5	12m	-20	250 Δ	0	7	F148	ML92
62	RA9-2000	2048	1	D	MPG	360n*	615n*	200m	15	5.0	.80	3.0	600u	1.8	0	7		ML92	
63	91600311	2048	1	D	MPX	360n	595n*	200m	15	5.0	.50	3.5	600u		500 Δ	0	7	A87	ML8
64	S6606	4096	1	D	MNG	190n	530nΔ*	409m	5.0	12	.80	3.0	1.6m	.40	500 Δ	0	7	A144a	ML154
65	MCM6605L	4096	1	D	MNG	210n	490n	335m	0.0	5.0	.80	3.0	10uΔ	.45	0	7	A148	ML156	
66	S6605	4096	1	D	MNG	230n	530nΔ*	409m	5.0	12	.80	3.0	1.6m	.40	500 Δ	0	7	A144	ML154
67	S6606A	4096	1	D	MNG	260n	600nΔ*	409m	5.0	12	.80	3.0	1.6m	.40	500 Δ	0	7	A144a	ML154
68	MCM6605L1	4096	1	D	MNG	300n	590n	335m	0.0	5.0	.80	3.0	10uΔ	.45	0	7	A148	ML156	
69▼	RM1701H	4096	1	D	MNG	300n	470n	400m	12	5.0	.60	2.2	3.2m	.4	0	6	A160	ML8a	
70	S6605A	4096	1	D	MNG	300n	600nΔ*	409m	5.0	12	.80	3.0	1.6m	.40	500 Δ	0	7	A144	ML154
71	TMS4030JL																		

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)OP.MODE
PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	6	TYPE No.	ORGANIZATION		OP 4		MAX ACCESS TIME (s)	MAX OPER. POWER (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		OPER. TEMP. RANGE CODE	GENERAL DESCRIPTION	DRAWINGS		
			1	2	MODE	STRUC			TURE	NEG.	POS.	MAX '0'	MIN '1'	(A)			@ OUT (V)	LOGIC/ BLOCK	OUTLINE
1#		NOM201C	1	1	SE	MPN			-40	40	-3.5	-13	1.0nA	-10	4	A	TA:Non-Vol.	B116	CY9
2#		NOM202C	1	2	SE	MPN			-40	40	-3.5	-13	1.0nA	-10	4	A	TA:Non-Vol.	B117	CY10
3#		NOM204C	1	4	SE	MPN			-40	40	-3.5	-13	1.0nA	-10	4	A	TA:Non-Vol.	B118	ML137
4		MS109	1	9	SE	TAX	70n	0.0	5.0					0	7	Pr Non-Vol		CY8	
5		MS113	1	13	SE	TAX	70n	0.0	5.0					0	7	Pr Non-Vol		ML2	
6		MS116	1	16	SE	TAX	70n	0.0	5.0					0	7	Pr Non-Vol		ML2	
7		MS208	2	8	SE	TAX	70n	0.0	5.0					0	7	Pr Non-Vol		ML2	
8#		MS204	4	2	SE	BAX	50n†	8.5m	0.0	5.0	1.4	.20		5	7	PR Non-Vol RMM	B141	CY7b	
9#		RM15	8	4	SE	TAX	50n†	8.5m	0.0	5.0	2.0	.80		0	7	PR Non-Vol RMM	B138	ML82	
10#		NOM401C#1	8	8	SE	MPN			20	20				4	A	Non-Volatile	B101	FL26	
11#		NOM401C#2	8	8	SE	MPN			20	20				4	A	Non-Volatile	B101	ML138	
12#		MS115	15	1	SE	TAX	50n†	8.5m	0.0	5.0	1.4	.20		5	7	PR Non-Vol RMM	B140	ML82	
13#		RM15V	15	1	SE	TAX	50n†	8.5m	0.0	5.0	2.0	.80		0	7	PR Non-Vol RMM	B139	ML82	
14#		RM32	15	1	SE	TAX	50n†	8.5m	0.0	5.0	2.0	.80		0	7	PR Non-Vol RMM	B137	ML82	
15		MCM4000L	16	8	SC	BDX	45n	365m	0.0	5.0	.45%	2.5	16m	.45	0	7		B24	ML5
16		MCM4000P	16	8	SC	BDX	45n	365m	0.0	5.0	.45%	2.5	12m	.80	5	C		B24	ML81
17		MCM4300L	16	8	SC	BDX	45n	365m	0.0	5.0	.45%	2.5	16m	.45	0	7		B24	ML5
18#		RM256A#5	16#	16#	SE	TAX	50n†	8.5m	0.0	5.0	2.0	.80		5	7	PR Non-Vol RMM	B59	ML14	
19#		SN10139	32	8	SE	BEX	20n	754m	5.2	0.0	-1.6	-.98		0	8	PR			
20#		DM7598J	32	8	S	BTX	30n†	350m†	0.0	5.0	.80	2.0#	12m	.40	5	C		B154	ML181
21#		DM8598J	32	8	S	BTX	30n†	350m†	0.0	5.0	.80	2.0#	12m	.40	0	7		B154	ML181
22#		DM8598N	32	8	S	BTX	30n†	250m†	0.0	5.0	.80	2.0#	12m	.40	0	7		B154	ML178
23		SN5488AJ	32	8	SC	BTX	25n†	285m†	0.0	5.0	.80	2.0	12m	.40	5	C		B21	ML48
24		SN5488AN	32	8	SC	BTX	25n†	285m†	0.0	5.0	.80	2.0	12m	.40	5	C		B21	ML48
25		SN5488AW	32	8	SC	BTX	25n†	285m†	0.0	5.0	.80	2.0	12m	.40	5	C		B21	MO004AG
26		SN7488AJ	32	8	SC	BTX	25n†	285m†	0.0	5.0	.80	2.0	12m	.40	0	7		B21	ML68
27		SN7488AN	32	8	SC	BTX	25n†	285m†	0.0	5.0	.80	2.0	12m	.40	0	7		B21	ML48
28		SN7488AW	32	8	SC	BTX	25n†	285m†	0.0	5.0	.80	2.0	12m	.40	0	7		B21	MO004AG
29		SN74188AJ	32	8	SC	BTX	30n†		0.0	5.0	.80	2.0	12m	.45	0	7	Field Program	B21	ML61a
30		SN74188AN	32	8	SC	BTX	30n†		0.0	5.0	.80	2.0	12m	.45	0	7	Field Program	B21	ML48
31		5230D	32	8	SC	BTX	50n	500m	0.0	5.0	.80	2.0	10m	.45	5	C		B126d	ML158
32		5230J	32	8	SC	BTX	50n	500m	0.0	5.0	.80	2.0	10m	.45	5	C		B126d	ML157
33		5230N	32	8	SC	BTX	50n	500m	0.0	5.0	.80	2.0	10m	.45	5	C		B126d	ML157
34		5231D	32	8	SC	BTX	50n	625m	0.0	5.0	.80	2.0#	10m	.45	5	C		B126d	ML158
35		5231J	32	8	SC	BTX	50n	625m	0.0	5.0	.80	2.0#	10m	.45	5	C		B126d	ML157
36		5231N	32	8	SC	BTX	50n	625m	0.0	5.0	.80	2.0#	10m	.45	5	C		B126d	ML157
37		6230D	32	8	SC	BTX	50n	500m	0.0	5.0	.80	2.0	16m	.45	0	7		B126d	ML158
38		6230J	32	8	SC	BTX	50n	500m	0.0	5.0	.80	2.0	16m	.45	0	7		B126d	ML157
39		6230N	32	8	SC	BTX	50n	500m	0.0	5.0	.80	2.0	16m	.45	0	7		B126d	ML157
40		6231D	32	8	SC	BTX	50n	625m	0.0	5.0	.80	2.0#	16m	.45	0	7		B126d	ML158
41		6231J	32	8	SC	BTX	50n	625m	0.0	5.0	.80	2.0#	16m	.45	0	7		B126d	ML157
42		6231N	32	8	SC	BTX	50n	625m	0.0	5.0	.80	2.0#	16m	.45	0	7		B126d	ML157
43#		93434DC	32	8	SC	BTX	50n‡	400m‡	0.0	5.0	.85	1.6	10m	.45	0	7		B142	ML98a
44#		93434DM	32	8	SC	BTX	50n‡	400m‡	0.0	5.0	.80	1.4	10m	.40	5	C		B142	ML98a
45		MCM4002L	32	8	SC	BTX	50n	500m	0.0	5.0	.45%	2.5	12m	.45	5	C		B60	ML5
46		MCM4002P	32	8	SC	BTX	50n	500m	0.0	5.0	.45%	2.5	12m	.45	0	7		B60	ML81
47		N7488B	32	8	SC	BTX	50n#	400m‡	0.0	5.0	.40%		16m	.40	0	7		B67	ML85
48		N7488R	32	8	SC	BTX	50n#	400m‡	0.0	5.0	.40%		16m	.40	0	7		B67	FL18
49		N8224B	32	8	SC	BTX	50n#‡	400m‡	0.0	5.0	.40%		9.6m	.40	0	7		B67	ML89a
50		N8224F	32	8	SC	BTX	50n#‡	400m‡	0.0	5.0	.40%		9.6m	.40	0	7		B67	ML60a
51		N8224W	32	8	SC	BTX	50n#‡	400m‡	0.0	5.0	.40%		9.6m	.40	0	7		B67	FL25
52		S8224B	32	8	SC	BTX	50n#‡	400m‡	0.0	5.0	.40%		9.6m	.40	5	C		B67	ML89a
53		S8224F	32	8	SC	BTX	50n#‡	400m‡	0.0	5.0	.40%		9.6m	.40	5	C		B67	ML60a
54		S8224W	32	8	SC	BTX	50n#‡	400m‡	0.0	5.0	.40%		9.6m	.40	5	C		B67	FL25
55#		T154D1	32	8	SC	BTX	50n‡	400m‡	0.0	5.0	.90	2.0	10m	.45	0	7		B20	ML60
56#		10139F	32	8	SE	BEX	20n	580m†	5.2	0.0	-1.6	-.96		3	8	PR		B149	ML61d
57		SN54S188J	32	8	SE	BDT	40n	605m	0.0	5.0	.80	2.0	16m	.50	5	C		ML61a	
58		SN54S188W	32	8	SE	BDT	40n	605m	0.0	5.0	.80	2.0	16m	.50	5	C			MO004AG
59		SN54S288J	32	8	SE	BDT	40n	605m	0.0	5.0	.80	2.0	16m	.50	5	C		ML61a	
60		SN54S288W	32	8	SE	BDT	40n	605m	0.0	5.0	.80	2.0	16m	.50	5	C			MO004AG
61		SN74S188J	32	8	SE	BDT	40n‡	578m‡	0.0	5.0	.80	2.0	16m	.50	0	7		ML61a	
62		SN74S188N	32	8	SE	BDT	40n‡	578m‡	0.0	5.0	.80	2.0	16m	.50	0	7		ML48	
63		SN74S288J	32	8	SE	BDT	40n‡	578m‡	0.0	5.0	.80	2.0	16m	.50	0	7		ML61a	
64		SN74S288N	32	8	SE	BDT	40n‡	578m‡	0.0	5.0	.80	2.0	16m	.50	0	7		ML48	
65		SN74188J	32	8	SE	BTX	30n†	410m†	0.0	5.0	.80	2.0	12m	.40	0	7	Field Program	B21	ML61a
66		SN74188N	32	8	SE	BTX	30n†	410m†	0.0	5.0	.80	2.0	12m	.40	0	7	Field Program	B21	ML48
67		82S23	32	8	SE	BTX	40n#	500m‡	0.0	5.0	.80*	2.0#	20m		0	7		B67	ML132
68		82S123	32	8	SE	BTX	40n#	500m‡	0.0	5.0	.80	2.0#	20m		0	7		B67	ML132

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)OP.MODE
PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	TYPE No.	ORGANIZATION		3 OP 4		5	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		OPER. TEMP. RANGE CODE	DRAWINGS			
		1	2	MODE	PROG. STRUCTURE CODE			MAX ACCESS TIME (s)	NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)		@ OUT (V)	GENERAL DESCRIPTION	LOGIC/ BLOCK	OUTLINE
1	MCM4303AL	64	8	SE	BTX	75n	600m	0.0	5.0	.45%	2.5	200uA	5 C	F-0 10	B103	ML95		
2	HPROM0512-8	64	8	SE	BTX	55n	400m	0.0	5.0	.80	2.0	10m	5 C		B17	ML30d		
3	HPROM0512-2	64	8	SE	BTX	55n	400m	0.0	5.0	.80	2.0	10m	5 C		B17	ML30a		
4	HPROM0512-5	64	8	SE	BTX	55n	400m	0.0	5.0	.80	2.0	10m	.45		0 7	B17	ML30a	
5	HPROM0512-2	64	8	SE	BTX	75n	400m	0.0	5.0	.80	2.0	10m	.45		5 C	B17	ML30d	
6	HPROM0512-5	64	8	SE	BTX	75n	400m	0.0	5.0	.80	2.0	10m	.45		0 7	B17	ML30d	
7	MCM5003AL	64	8	SE	BTX	75n	600m	0.0	5.0	.45%	2.5	12m	4.7	0 7	B61	ML79		
8	MCM5003L	64	8	SE	BTX	75n	600m	0.0	5.0	.45%	2.5	12m	4.7	0 7	B61	ML133		
9	MCM5004AL	64	8	SE	BTX	75n	600m	0.0	5.0	.45%	2.5	10m	4.7	0 7	B61	ML79		
10	MCM5004L	64	8	SE	BTX	75n	600m	0.0	5.0	.45%	2.5	10m	4.7	0 7	B61	ML133		
11	MCM5303AL	64	8	SE	BTX	75n	600m	0.0	5.0	.45%	2.5	12m	4.7	5 C	B61	ML79		
12	MCM5303L	64	8	SE	BTX	75n	600m	0.0	5.0	.45%	2.5	12m	4.7	5 C	B61	ML133		
13	MCM5304AL	64	8	SE	BTX	75n	600m	0.0	5.0	.45%	2.5	10m	4.7	5 C	B61	ML79		
14	MCM5304L	64	8	SE	BTX	75n	600m	0.0	5.0	.45%	2.5	10m	4.7	5 C	B61	ML133		
15	JANM38510/20101AJA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	ML126		
16	JANM38510/20101AJB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	ML126		
17	JANM38510/20101AJC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	ML126		
18	JANM38510/20101AKA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL29		
19	JANM38510/20101AKB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL29		
20	JANM38510/20101AKC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL29		
21	JANM38510/20101AZA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL30		
22	JANM38510/20101AZB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL30		
23	JANM38510/20101AZC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL30		
24	JANM38510/20101BJA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	ML126		
25	JANM38510/20101BJB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	ML126		
26	JANM38510/20101BJC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	ML126		
27	JANM38510/20101BKA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL29		
28	JANM38510/20101BKB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL29		
29	JANM38510/20101BKC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL29		
30	JANM38510/20101BZA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL30		
31	JANM38510/20101BZB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL30		
32	JANM38510/20101BZC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL30		
33	JANM38510/20101CJA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	ML126		
34	JANM38510/20101CJB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	ML126		
35	JANM38510/20101CJC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	ML126		
36	JANM38510/20101CKA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL29		
37	JANM38510/20101CKB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL29		
38	JANM38510/20101CKC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL29		
39	JANM38510/20101CZA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL30		
40	JANM38510/20101CZB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL30		
41	JANM38510/20101CZC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105	FL30		
42	JANM38510/20102AJA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	ML126		
43	JANM38510/20102AJB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	ML126		
44	JANM38510/20102AJC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	ML126		
45	JANM38510/20102AKA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	FL29		
46	JANM38510/20102AKB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	FL29		
47	JANM38510/20102AKC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	FL29		
48	JANM38510/20102AZA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	FL30		
49	JANM38510/20102AZB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	FL30		
50	JANM38510/20102AZC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	FL30		
51	JANM38510/20102BJA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	ML126		
52	JANM38510/20102BJB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	ML126		
53	JANM38510/20102BJC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	ML126		
54	JANM38510/20102BKA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	FL29		
55	JANM38510/20102BKB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	FL29		
56	JANM38510/20102BKC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	FL29		
57	JANM38510/20102BZA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	FL30		
58	JANM38510/20102BZB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	FL30		
59	JANM38510/20102BZC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	FL30		
60	JANM38510/20102CJA	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	ML126		
61	JANM38510/20102CJB	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	ML126		
62	JANM38510/20102CJC	64	8	SE	BTX	140n	575m	0.0	5.0	.80	2.0	30m			B105a	ML126		

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)OP.MODE
PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	TYPE No.	ORGANIZATION		3 OP 4		5	MAX ACCESS TIME (s)	MAX OPER. DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT @ OUT (V)		OPER. TEMP. RANGE CODE	GENERAL DESCRIPTION	DRAWINGS	
		1	2	BITS PER WORD	MODE CODE				STRUCTURE CODE	NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	LOGIC/BLOCK			OUTLINE	
1	JANM38510/20102CKA	64	8	SE	BTX	140n\$	575m	0.0	5.0	.80	2.0	30m	5	C	PROM	B105a	FL29	
2	JANM38510/20102CKB	64	8	SE	BTX	140n\$	575m	0.0	5.0	.80	2.0	30m	5	C	PROM	B105a	FL29	
3	JANM38510/20102CKC	64	8	SE	BTX	140n\$	575m	0.0	5.0	.80	2.0	30m	5	C	PROM	B105a	FL29	
4	JANM38510/20102CZA	64	8	SE	BTX	140n\$	575m	0.0	5.0	.80	2.0	30m	5	C	PROM	B105a	FL30	
5	JANM38510/20102CZB	64	8	SE	BTX	140n\$	575m	0.0	5.0	.80	2.0	30m	5	C	PROM	B105a	FL30	
6	JANM38510/20102CZC	64	8	SE	BTX	140n\$	575m	0.0	5.0	.80	2.0	30m	5	C	PROM	B105a	FL30	
7	HRM2048	64	32	SE	TAX	240n	400m	0.0	5.0	.80	2.0	0	7		Programmable PR Non-Vol RMM	B91	ML113	
8	HRM2048#6	64	32	SE	TAX	500n	640m	0.0	5.0	2.0	.80	0	7			B91	ML113	
9	MRM1A64-80	64	80	SC	MXX	330n	9.5	12	12	.40	2.5	1.6m	.40	0	7		B54	PL4
10	DM7575D	96	8	SC	BTX	100n	550m	0.0	5.0	.80	2.0	12m	.40	0	7	PLA	B155	ML184
11	DM7576D	96	8	SC	BTX	100n	550m	0.0	5.0	.80	2.0	12m	.40	0	7	PLA	B155	ML184
12	DM8575D	96	8	SC	BTX	100n	550m	0.0	5.0	.80	2.0	12m	.40	5	C	PLA	B155	ML184
13	DM8575N	96	8	SC	BTX	100n	550m	0.0	5.0	.80	2.0	12m	.40	5	C	PLA	B155	ML183
14	DM8576D	96	8	SC	BTX	100n	550m	0.0	5.0	.80	2.0	12m	.40	5	C	PLA	B155	ML184
15	DM8576N	96	8	SC	BTX	100n	550m	0.0	5.0	.80	2.0	12m	.40	5	C	PLA	B155	ML183
16	RM256A#2	128	2	SE	TAX	50n	8.5m	0.0	5.0	2.0	.80	10m	.40	5	7	PR Non-Vol RMM	B59	ML14
17	MM5220	128	8	SC	BTX	75n	600m	0.0	5.0	.80	2.0	10m	.40	5	C		B84	ML47c
18	MM5221	128	8	SC	BTX	75n	600m	0.0	5.0	.80	2.0	10m	.40	5	C		B84	ML47c
19	MM6220	128	8	SC	BTX	75n	600m	0.0	5.0	.85	2.0	15m	.45	0	7		B84	ML47c
20	MM6221	128	8	SC	BTX	75n	600m	0.0	5.0	.85	2.0	15m	.45	0	7		B84	ML47c
21	UC7526	128	8	SC	MPA	1.5u	130m	27	0.0	-2.0	-9.0	1.6m	-15	0	7		B19	ML31a
22	CRC3001-1.3	128	8	SC	MPC	4.0u	130m	27	0.0	-2.0	-9.0	1.6m	-15	0	7		B4	ML13a
23	CRC3001-2.3	128	8	SC	MPC	4.0u	130m	27	0.0	-2.0	-9.0	1.6m	-15	0	7		B4	FL3
24	N2420Y#1	128	8	SC	MPX	500n	1.1	12	12	10*	4.0	2	7	2	7		B26a	ML21b
25	N2421Y#1	128	8	SC	MPX	500n	1.1	12	12	10*	4.0	2	7	2	7		B26a	ML21b
26	N2425Y#1	128	8	SC	MPX	500n	1.1	12	12	10*	4.0	2	7	2	7		B26c	ML21b
27	N2426Y#1	128	8	SC	MPX	500n	1.1	12	12	10*	4.0	2	7	2	7		B26c	ML21b
28	MM4220D#1	128	8	SC	MPX	650n	300m	12	12	10*	4.0#	5	7	5	7		B26a	ML118
29	MM4220N#1	128	8	SC	MPX	650n	300m	12	12	10*	4.0#	5	7	5	7		B26a	ML118
30	MM4220Q#1	128	8	SC	MPX	650n	300m	12	12	10*	4.0#	2	7	2	7		B26a	ML117
31	MM5220D#1	128	8	SC	MPX	650n	300m	12	12	10*	4.0#	2	7	2	7		B26a	ML118
32	MM5220N#1	128	8	SC	MPX	650n	300m	12	12	10*	4.0#	2	7	2	7		B26a	ML118
33	MM5220Q#1	128	8	SC	MPX	650n	300m	12	12	10*	4.0#	2	7	2	7		B26a	ML117
34	UC65253K#1	128	8	SC	MPX	900n	150m	5.0	5.0	.80	2.6	1.6m	.40	5	7		B9k	ML31a
35	UC65254K#1	128	8	SC	MPX	900n	150m	5.0	5.0	.80	2.6	1.6m	.40	5	7		B9k	FL3a
36	UC75253K#1	128	8	SC	MPX	900n	150m	5.0	5.0	.80	2.6	1.6m	.40	0	7		B9k	ML31a
37	UC75254K#1	128	8	SC	MPX	900n	150m	5.0	5.0	.80	2.6	1.6m	.40	0	7		B9k	ML31a
38	MM4221D#1	128	8	SC	MPX	950n	204m	12	5.0	3.0*	.80#	5	7	5	7		B26a	ML118
39	MM4221N#1	128	8	SC	MPX	950n	204m	12	5.0	3.0*	.80#	5	7	5	7		B26a	ML118
40	MM4221Q#1	128	8	SC	MPX	950n	204m	12	5.0	3.0*	.80#	2	7	2	7		B26a	ML117
41	MM5221D#1	128	8	SC	MPX	950n	204m	12	5.0	3.0*	.80#	2	7	2	7		B26a	ML117
42	MM5221N#1	128	8	SC	MPX	950n	204m	12	5.0	3.0*	.80#	2	7	2	7		B26a	ML118
43	MM5221Q#1	128	8	SC	MPX	950n	204m	12	5.0	3.0*	.80#	2	7	2	7		B26a	ML117
44	MM4222#1	128	8	SC	MPX	1.0u	420m	12	12	10*	4.0#	5	7	5	7		B26a	ML30b
45	MM5222#1	128	8	SC	MPX	1.0u	420m	12	12	10*	4.0#	2	7	2	7		B26a	ML30b
46	MM3501D	128	8	SC	MPX	4.0u	215m	27	0.0	-2.0	-9.0	1.0u	-1.0	0	7		B107	ML128
47	3501-9-6G	128	8	SC	MPX	4.2u	215m	27	0.0	-2.0	-9.0	1.0u	-1.5	0	7		B19	ML51
48	UA2525D#1	128	8	SC	MXX	900n	360m	10	0.0	.80*	2.7	1.6m	.40	5	7		B9	ML31a
49	UA3525D#1	128	8	SC	MXX	900n	360m	10	0.0	.80*	2.7	1.6m	.40	2	7		B9	ML31a
50	UA3525F#1	128	8	SC	MXX	900n	360m	10	0.0	.80*	2.7	1.6m	.40	2	7		B9	FL3a
51	CRC3003-1.3	128	8	SS	MPC	4.0u	130m	27	0.0	-2.0	-9.0	1.6m	-15	0	7	Sine Pr.	B4	ML13a
52	CRC3003-2.3	128	8	SS	MPC	4.0u	130m	27	0.0	-2.0	-9.0	1.6m	-15	0	7	Sine Pr.	B4	FL3
53	MM4228N	128	8	SS	MPX	1.0u	420m	12	12	10*	4.0#	5	7	5	7	Arctangent Pr	B26a	ML30b
54	MM5228N	128	8	SS	MPX	1.0u	420m	12	12	10*	4.0#	2	7	2	7	Arctangent Pr	B26a	ML30b
55	S8457#1	128	12	SC	MPI	1.0u	1.0	12	5.0	.70	4.0	1.6m	.40	0	7		B89	ML13b
56	S8539#1	128	12	SC	MPI	1.0u	1.0	12	5.0	.70	4.0	1.6m	.40	0	7		B92	ML13b
57	HRM2048#5	128	16	SE	TAX	500n	640m	0.0	5.0	2.0	.80	10m	.40	0	7	PR Non-Vol RMM	B91	ML113
58	MRM2A128-40	128	40	SC	MXX	330n	9.5	12	12	.40	2.5	1.6m	.40	0	7		B54	PL4
59	MRM1B128-80	128	80	SC	MXX	330n	9.5	12	12	.40	2.5	1.6m	.40	0	7		B54	PL4
60	HPROM1256-8	256	1	SE	BTX	50n	525m	0.0	5.0	.80	2.0	16m	.45	5	7		B69	ML15
61	HPROM1256-2	256	1	SE	BTX	60n	600m	0.0	5.0	.80	2.0	16m	.45	5	7		B69	ML15
62	HPROM1256-5	256	1	SE	BTX	60n	600m	0.0	5.0	.80	2.0	16m	.45	0	7		B69	ML15
63	RM256A#1	256	1	SE	TAX	50n	8.5m	0.0	5.0	2.0	.80	10m	.40	5	7	PR Non-Vol RMM	B59	ML14
64	DM7574D	256	4	S	BTX	60n	400m	0.0	5.0	.80	2.0	16m	.40	5	7	Field Program	B80	ML177
65	DM7597D	256	4	S	BTX	60n	400m	0.0	5.0	.80	2.0	16m	.40	5	7		B153	ML177
66	DM8574D	256	4	S	BTX	60n	400m	0.0	5.0	.80	2.0	16m	.40	0	7	Field Program	B80	ML177
67	DM8597J	256	4	S	BTX	60n	400m	0.0	5.0	.80	2.0	16m	.40	0	7		B153	ML181
68	DM8597N	256	4	S	BTX	60n	400m	0.0	5.0	.80	2.0	16						

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)OP.MODE
PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	6	TYPE No.	ORGANIZATION		3 OP 4	5	MAX ACCESS TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT @ OUT		OPER. TEMP. RANGE CODE	DRAWINGS				
			1 No. WORDS	2 BITS PER WORD					MODE PROG CODE	STRUCTURE CODE	NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)	GENERAL DESCRIPTION	LOGIC/BLOCK	OUTLINE
1	6200D	256	4	SC	BTX	50n	625m	0.0	5.0	.80	2.0	16m	.45	0	7	B126c	ML158			
2	6200J	256	4	SC	BTX	50n	625m	0.0	5.0	.80	2.0	16m	.45	0	7	B126c	ML157			
3	6200N	256	4	SC	BTX	50n	625m	0.0	5.0	.80	2.0	16m	.45	0	7	B126c	ML157			
4	6201D	256	4	SC	BTX	50n	625m	0.0	5.0	.80	2.0s	16m	.45	0	7	B126c	ML158			
5	6201J	256	4	SC	BTX	50n	625m	0.0	5.0	.80	2.0s	16m	.45	0	7	B126c	ML157			
6	6201N	256	4	SC	BTX	50n	625m	0.0	5.0	.80	2.0s	16m	.45	0	7	B126c	ML157			
7	MCM4004AL	256	4	SC	BTX	60ns	700m	0.0	5.0	.45%	2.5	10m	.45	0	7	E12	ML98			
8	MCM4304L	256	4	SC	BTX	60ns	700m	0.0	5.0	.45%	2.5	10m	.45	5	C	E12	ML60b			
9	MCM14524AL	256	4	SC	MCX	1.8u	50u	0.0	5.0	.01%	4.99	210u	.40	5	C	B120	ML5			
10	MCM14524CL	256	4	SC	MCX	1.8u	50u	0.0	5.0	.01%	4.99	210u	.40	4	8	B120	ML5			
11	N2410I	256	4	SC	MPG	500nt	800m	12	12	4.0	10			2	7	B27	ML84			
12	N2411I	256	4	SC	MPG	500nt	800m	12	12	4.0	10			2	7	B27	ML84			
13	N2420Y#2	256	4	SC	MPX	500nt	1.1	12	12	10*	4.0			2	7	B26a	ML21b			
14	N2421Y#2	256	4	SC	MPX	500nt	1.1	12	12	10*	4.0			2	7	B26a	ML21b			
15	N2425Y#2	256	4	SC	MPX	500nt	1.1	12	12	10*	4.0			2	7	B26c	ML21b			
16	N2426Y#2	256	4	SC	MPX	500nt	1.1	12	12	10*	4.0			2	7	B26c	ML21b			
17	MM4210D	256	4	SC	MPX	650n	300m	12	12	10*	4.0#			6	E	B27	ML2			
18	MM4210N	256	4	SC	MPX	650n	300m	12	12	10*	4.0#			6	E	B27	ML2e			
19	MM4220D#2	256	4	SC	MPX	650n	300m	12	12	10*	4.0#			5	C	B26a	ML2			
20	MM4220N#2	256	4	SC	MPX	650n	300m	12	12	10*	4.0#			5	C	B26a	ML118			
21	MM4220Q#2	256	4	SC	MPX	650n	300m	12	12	10*	4.0#			5	C	B26a	ML117			
22	MM5210D	256	4	SC	MPX	650n	300m	12	12	10*	4.0#			2	7	B27	ML2			
23	MM5210N	256	4	SC	MPX	650n	300m	12	12	-2.0*	-8.0#			2	7	B27	ML2e			
24	MM5220D#2	256	4	SC	MPX	650n	300m	12	12	10*	4.0#			2	7	B26a	ML2			
25	MM5220N#2	256	4	SC	MPX	650n	300m	12	12	10*	4.0#			2	7	B26a	ML118			
26	MM5220Q#2	256	4	SC	MPX	650n	300m	12	12	10*	4.0#			2	7	B26a	ML117			
27	UC65253K#3	256	4	SC	MPX	900n	150m	5.0	5.0	.80	2.6	1.6m	.40	5	C	B9n	ML31a			
28	UC65254K#3	256	4	SC	MPX	900n	150m	5.0	5.0	.80	2.6	1.6m	.40	5	C	B9n	FL3a			
29	UC75253K#3	256	4	SC	MPX	900n	150m	5.0	5.0	.80	2.6	1.6m	.40	0	7	B9n	ML31a			
30	UC75254K#3	256	4	SC	MPX	900n	150m	5.0	5.0	.80	2.6	1.6m	.40	0	7	B9n	ML31a			
31	MM4211D	256	4	SC	MPX	950n	60m	12	5.0	3.0*	.80#			6	E	B27	ML2			
32	MM4211N	256	4	SC	MPX	950n	60m	12	5.0	3.0*	.80#			6	E	B27	ML2e			
33	MM4221D#2	256	4	SC	MPX	950n	204m	12	5.0	3.0*	.80#			5	C	B26a	ML2			
34	MM4221N#2	256	4	SC	MPX	950n	204m	12	5.0	3.0*	.80#			5	C	B26a	ML118			
35	MM4221Q#2	256	4	SC	MPX	950n	204m	12	5.0	3.0*	.80#			5	C	B26a	ML117			
36	MM5211D	256	4	SC	MPX	950n	204m	12	5.0	-3.0	-8.0#			5	C	B27	ML2			
37	MM5211N	256	4	SC	MPX	950n	60m	12	5.0	3.0*	.80#			5	C	B27	ML2e			
38	MM5221D#2	256	4	SC	MPX	950n	204m	12	5.0	3.0*	.80#			2	7	B26a	ML2			
39	MM5221N#2	256	4	SC	MPX	950n	204m	12	5.0	3.0*	.80#			2	7	B26a	ML118			
40	MM5221Q#2	256	4	SC	MPX	950n	204m	12	5.0	3.0*	.80#			2	7	B26a	ML117			
41	MM421	256	4	SC	MPX	1.0u	420m	12	12	10**	4.0#			5	C	B27	ML4b			
42	MM422#2	256	4	SC	MPX	1.0u	420m	12	12	10**	4.0#			5	C	B26a	ML30b			
43	MM521	256	4	SC	MPX	1.0u	420m	12	12	10**	4.0#			2	7	B27	ML4b			
44	MM522#2	256	4	SC	MPX	1.0u	420m	12	12	10**	4.0#			2	7	B26a	ML30b			
45	UA2525D#2	256	4	SC	MPX	900n	360m	10	0.0	.80*	2.7	1.6m	.40	5	C	B9	ML31a			
46	UA3525D#2	256	4	SC	MPX	900n	360m	10	0.0	.80*	2.7	1.6m	.40	2	7	B9	FL3a			
47	UA3525F#2	256	4	SC	MPX	900n	360m	10	0.0	.80*	2.7	1.6m	.40	2	7	B9	ML31a			
48	MD6300	256	4	SE	BTX	55n	575m	0.0	5.5	.85	2.0	15m	.45	0	7	B50a	ML10a			
49	MD5300	256	4	SE	BTX	65n	575m	0.0	5.5	.80	2.0	10m	.40	5	C	B50a	ML10a			
50	SN74S287J	256	4	SE	BTX	40nt	825m	0.0	5.0	.80	2.0s	16m	.50	0	7	Field Program	B135			
51	SN74S287N	256	4	SE	BTX	40nt	825m	0.0	5.0	.80	2.0s	16m	.50	0	7	Field Program	B135			
52	SN74S387J	256	4	SE	BTX	40nt	787m	0.0	5.0	.80	2.0	16m	.50	0	7	Field Program	B135			
53	SN74S387N	256	4	SE	BTX	40nt	787m	0.0	5.0	.80	2.0	16m	.50	0	7	Field Program	B135			
54	C3601	256	4	SE	BTX	70n	512m	0.0	5.0	.85	2.0	15m	.45	0	7	B10	ML10c			
55	HPROM1024-2	256	4	SE	BTX	50nt	500mt	0.0	5.0	.80	2.0s	15m	.45	5	C	B10	ML15			
56	HPROM1024-5	256	4	SE	BTX	50nt	500mt	0.0	5.0	.80	2.0s	15m	.45	0	7	B10	ML15			
57	HPROM1024-8	256	4	SE	BTX	50nt	500mt	0.0	5.0	.80	2.0	15m	.45	5	C	B10	ML15			
58	HPROM1024A2	256	4	SE	BTX	50nt	500mt	0.0	5.0	.80	2.0	15m	.45	5	C	B10	ML15			
59	HPROM1024A5	256	4	SE	BTX	50nt	500mt	0.0	5.0	.80	2.0	15m	.45	0	7	B10	ML15			
60	HPROM1024A8	256	4	SE	BTX	50nt	500mt	0.0	5.0	.80	2.0	15m	.45	5	C	B10	ML15			
61	5300D	256	4	SE	BTX	60n	600m	0.0	5.0	.80	2.0	10m	.45	5	C	B50	ML158			
62	5300J	256	4	SE	BTX	60n	600m	0.0	5.0	.80	2.0	10m	.45	5	C	B50	ML159			
63	5301D	256	4	SE	BTX	60n	600m	0.0	5.0	.80	2.0s	10m	.45	5	C	B50	ML158			
64	5301J	256	4	SE	BTX	60n	600m	0.0	5.0	.80	2.0s	10m	.45	5	C	B50	ML159			
65	6300D	256	4	SE	BTX	60n	600m	0.0	5.0	.80	2.0	16m	.45	0	7	B50	ML158			
66	6300J	256	4	SE	BTX	60n	600m	0.0	5.0	.80	2.0	16m	.45	0	7	B50	ML159			
67	6301D	256	4	SE	BTX	60n	600m	0.0	5.0	.80	2.0s	16m	.45	0	7	B50	ML158			
68	6301J	256	4	SE	BTX	60n	600m	0.0	5.0	.80	2.0s	16m	.45	0	7	B50	ML159			
69	FLR131	256	4	SE	BTX	60n	500m	0.0	5.0	.80	2.0	20m	.40	0	7	PROM				
70	IM5603ACDE	256	4	SE	BTX	60n	500m	0.0	5.0	.85	2.0	16m	.45	0	7	B82	ML1			

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)OP.MODE
PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	TYPE No.	ORGANIZATION				MAX ACCESS TIME (s)	MAX OPER. POWER (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		OPER. TEMP. RANGE	GENERAL DESCRIPTION	DRAWINGS	
		1 No. WORDS	2 BITS PER WORD	MODE CODE	STRUC TURE CODE			NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)	(V)				
1#	SFF70611KT#1	256	8	SC	MPA	700n	430m	12	5.0	.80	3.0	2.0m	1.0	-	8	B119	ML95
2	CRC3002-1-3#2	256	8	SC	MPC	1.5u	270m	12	12	.40*	2.5			0	7	B5	ML59
3	CRC3002-1-3XXX#1	256	8	SC	MPC	1.5u	270m	12	12	.40*	2.5			0	7	Avail.Std.Pr.	B5 ML13a
4	CRC3002-2-3#2	256	8	SC	MPC	1.5u	270m	12	12	.40*	2.5			0	7	B5	FL10
5	CRC3002-2-3XXX#1	256	8	SC	MPC	1.5u	270m	12	12	.40*	2.5			0	7	Avail.Std.Pr.	B5 FL10
6#	MF1301#1	256	8	SC	MPG	900n	1.0	9.0	5.0	.80	3.0	1.6m	.45	0	7	B18a	ML34
7	1301#1	256	8	SC	MPG	1.0u	700m	9.0	5.0	.80	3.0	1.6m	.45	0	7	B18a	ML34
8	C1302	256	8	SC	MPG	1.0u	2.0	9.0	5.0	1.0	3.0	1.6m	.45	0	7	B18a	ML34c
9	RO1-2048#4	256	8	SC	MPT	750n	120m	24	0.0	-2.0	-24	3.0m	5	8	B49	ML47	
10	N2430Y#1	256	8	SC	MPX	500n	1.1	12	12	10*	4.0			2	7	B26	ML21b
11	N2431Y#1	256	8	SC	MPX	500n	1.1	12	12	10*	4.0			2	7	B26	ML21b
12	N2435Y#1	256	8	SC	MPX	500n	1.1	12	12	10*	4.0			2	7	B26b	ML21b
13	N2436Y#1	256	8	SC	MPX	500n	1.1	12	12	10*	4.0			2	7	B26b	ML21b
14	MM4230D#1	256	8	SC	MPX	725n	480m	12	12	10*	4.0#			5	C	B26	ML118
15	MM4230N#1	256	8	SC	MPX	725n	480m	12	12	10*	4.0#			5	C	B26	ML118
16	MM4230Q#1	256	8	SC	MPX	725n	480m	12	12	10*	4.0#			5	C	B26	ML117
17	MM5230D#1	256	8	SC	MPX	725n	480m	12	12	10*	4.0#			2	7	B26	ML118
18	MM5230N#1	256	8	SC	MPX	725n	480m	12	12	10*	4.0#			2	7	B26	ML118
19	MM5230Q#1	256	8	SC	MPX	725n	480m	12	12	10*	4.0#			2	7	B26	ML117
20	MM5213	256	8	SC	MPX	750n	650m	5.0	12							B75	ML95
21	MCM1110LA#1	256	8	SC	MPX	800n	600m	24	0.0	0.0	-12	10u	-12	2	8	B75	ML95
22	MCM1110LC	256	8	SC	MPX	800n	600m	24	0.0	0.0	-12	10u	-12	2	8	B75	ML95
23	MM4213D#1	256	8	SC	MPX	850n	175m	12	5.0	3.0*	1.0#	1.6m	.40	5	C	Non-Vol	B26 ML128
24	MM4213N#1	256	8	SC	MPX	850n	175m	12	5.0	3.0*	1.0#	1.6m	.40	5	C	Non-Vol	B26 ML118
25	MM5213D#1	256	8	SC	MPX	850n	175m	12	5.0	3.0*	1.0#	1.6m	.40	2	7	Non-Vol	B26 ML128
26	MM5213N#1	256	8	SC	MPX	850n	175m	12	5.0	3.0*	1.0#	1.6m	.40	2	7	Non-Vol	B26 ML118
27	MM4231D#1	256	8	SC	MPX	950n	510m	12	5.0	3.0*	.80#			5	C	B26	ML118
28	MM4231N#1	256	8	SC	MPX	950n	510m	12	5.0	3.0*	.80#			5	C	B26	ML117
29	MM4231Q#1	256	8	SC	MPX	950n	510m	12	5.0	3.0*	.80#			5	C	B26	ML117
30	MM5231D#1	256	8	SC	MPX	950n	510m	12	5.0	3.0*	.80#			2	7	B26	ML118
31	MM5231N#1	256	8	SC	MPX	950n	510m	12	5.0	3.0*	.80#			2	7	B26	ML118
32	MM5231Q#1	256	8	SC	MPX	950n	510m	12	5.0	3.0*	.80#			2	7	B26	ML117
33	MM423#1	256	8	SC	MPX	1.0u	420m	12	12	9.5*	5.0#			2	7	B26	ML30b
34	MM523#1	256	8	SC	MPX	1.0u	420m	12	12	9.5*	5.0#			2	7	B26	ML30b
35	MM4224D#1	256	8	SC	MPX	1.0u	480m	15	5.0	.80	2.4#	1.6m	.40	5	C	B9a	ML130
36	MM4225D#1	256	8	SC	MPX	1.0u	480m	15	5.0	.80	2.4#	1.6m	.40	5	C	B9a	ML130
37	MM5224D#1	256	8	SC	MPX	1.0u	480m	15	5.0	.80	2.4#	1.6m	.40	2	7	B9a	ML130
38	MM5225D#1	256	8	SC	MPX	1.0u	480m	15	5.0	.80	2.4#	1.6m	.40	2	7	B9a	ML130
39	UC7523#1	256	8	SC	MPX	1.0u	420m	12	12	10*	4.0#			2	7	B11a	ML31b
40	3507-9-6G	256	8	SC	MPX	1.7u	800m	27	0.0	-2.0	-9.0			0	7	B45	ML51
41	RO1-2048S#1	256	8	SC	MPX	2.0u	275m	12	12	10*	4.0	2.5m	2.4	0	7	B26	ML88a
42#	HN3200P	256	8	SC	MPX	7.0u	70m	14	0.0	2.0	5.4			2	7	B79	ML51
43	3512-9-6G	256	8	SC	MPX	500n	575m	12	5.0	.85	4.0			0	7	B46	ML51
44	UA2548#1	256	8	SC	MPX	900n	600m	20	0.0	.80*	2.7	1.6m	.40	5	C	B9a	ML31a
45	UA3548#1	256	8	SC	MPX	900n	600m	20	0.0	.80*	2.7	1.6m	.40	2	7	B9a	ML31a
46#	M54700S	256	8	SE	BTX	80n	350u	0.0	5.0	.80	2.0	1.6m	.45	0	7	PROM	B50a ML149
47	5335D	256	8	SE	BTX	90n	400m	0.0	5.0	.80	2.0	8.0m	.50	5	C	B130a	ML47c
48	6335D	256	8	SE	BTX	90n	400m	0.0	5.0	.80	2.0	10m	.50	0	7	B130a	ML47c
49	1601#1	256	8	SE	MPG	1.0u	700m	9.0	5.0	.80	3.0	1.6m	.45	0	7	B18	ML34
50	1701#1	256	8	SE	MPG	1.0u	700m	9.0	5.0	.80	3.0	1.6m	.45	0	7	B18	ML34b
51	1702	256	8	SE	MPG	1.0u	700m	9.0	5.0	.80	3.0	1.6m	.45	0	7	B18	ML34
52	C1602A	256	8	SE	MPG	1.0u	2.0	9.0	5.0	1.0	3.0#	1.6m	.45	0	7	B18	ML34c
53	C1702A	256	8	SE	MPG	1.0u	2.0	9.0	5.0	1.0	3.0#	1.6m	.45	0	7	B18	ML34c
54#	MF1601#2	256	8	SE	MPG	1.0u	1.0	9.0	5.0	.80	3.0	1.6m	.45	0	7	B18	ML34
55#	MF1602	256	8	SE	MPG	1.0u	1.0	9.0	5.0	.80	3.0	1.6m	.45	0	7	B18	ML34
56#	MF1701#2	256	8	SE	MPG	1.0u	1.0	9.0	5.0	.80	3.0	1.6m	.45	0	7	B18	ML34b
57#	MF1702	256	8	SE	MPG	1.0u	1.0	9.0	5.0	.80	3.0	1.6m	.45	0	7	B18	ML34b
58	MM4203D#1	256	8	SE	MPG	1.0u	1.0	0.0	5.0	1.0	3.0#	1.6m	.40	5	8	B95	ML118
59	MM4203N#1	256	8	SE	MPG	1.0u	1.0	0.0	5.0	1.0	3.0#	1.6m	.40	5	8	B95	ML117
60	MM4203Q#1	256	8	SE	MPG	1.0u	1.0	0.0	5.0	1.0	3.0#	1.6m	.40	5	8	B95	ML117
61	MM5203D#1	256	8	SE	MPG	1.0u	1.0	0.0	5.0	1.0	3.0#	1.6m	.40	2	7	B95	ML118
62	MM5203N#1	256	8	SE	MPG	1.0u	1.0	0.0	5.0	1.0	3.0#	1.6m	.40	2	7	B95	ML118
63	MM5203Q#1	256	8	SE	MPG	1.0u	1.0	0.0	5.0	1.0	3.0#	1.6m	.40	2	7	B95	ML117
64	HRM2048#4	256	8	SE	TAX	500n	640m	0.0	5.0	2.0	.80			0	7	PR Non-Vol RMM	B91 ML113
65	CRC3004-1-3	256	8	SS	MPC	1.5u	270m	12	12	.40*	2.5			0	7	4x4 Mult.	B5 ML59
66	CRC3004-2-3	256	8	SS	MPC	1.5u	270m	12	12	.40*	2.5			0	7	4x4 Mult.	B5 FL10
67	RO6-2048S#1	256	8	SS	MPN	1.5u	300m	12	5.0	.80	-1.5#	1.6m	.40	5	C	B11b	ML13a
68	UC6548#4	256	8	SS	MPX	1.0u	750m	15	5.0	.60	2.6			5	C	B9e	ML31a
69	UC7548#4	256	8	SS	MPX	1.0u	750m	15	5.0	.60	2.6			0	7	B9e	ML31a
70#	MM5020	256	10		MPX		250										

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)OP.MODE
PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	6	TYPE No.	ORGANIZATION		3 OP 4		5	MAX		MAX OPER. POWER (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		OPER. TEMP. RANGE CODE	DRAWINGS				
			1	2	MODE	BITS		PROG	STRUC		TURE	MAX ACCESS TIME (s)	NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	@ OUT (V)	GENERAL DESCRIPTION	LOGIC/BLOCK	OUTLINE
1		MCS2020#2	320	7	DC	MPX	160n	200m	5.0	5.0	.80	3.5	1.6m	.40	2	8	7x10x32 KE90key 10x12x32 Rhythm Gen.	C34	ML13			
2		S8499#1	320	7	SC	MPA	2.0u	650m	13	13	4.0	11			0	7		B92	ML13b			
3		MCS1009	360	10s	DC	MPX	20uΔ	180m	12	5.0	.80	3.5	1.6m	.40	2	8		B115	ML14b			
4		MCS2018#2	384	10	DC	MPX	160n	200m	5.0	5.0	.80	3.5	1.6m	.40	2	8		C33	ML17			
5	#	M250D1	432	8	SC	MPN	180m†	180m†	0.0	18	8.0	17	100uΔ	18	0	7		B150	ML173			
6		UC65253K#2	512s	2	SC	MPX	900n	150m†	5.0	5.0	.80	2.6	1.6m	.40	5	C		B9m	ML31a			
7		UC65254K#2	512s	2	SC	MPX	900n	150m†	5.0	5.0	.80	2.6	1.6m	.40	5	C		B9m	FL3a			
8		UC75253K#2	512s	2	SC	MPX	900n	150m†	5.0	5.0	.80	2.6	1.6m	.40	0	7		B9m	ML31a			
9		UC75254K#2	512s	2	SC	MPX	900n	150m†	5.0	5.0	.80	2.6	1.6m	.40	0	7		B9m	ML31a			
10		UA2525D#3	512	2	SC	MPX	900n	360m	10	0.0	.80	2.7	1.6m	.40	5	C	B9	ML31a				
11		UA3525D#3	512	2	SC	MPX	900n	360m	10	0.0	.80	2.7	1.6m	.40	2	7	B9	ML31a				
12		UA3525F#3	512	2	SC	MPX	900n	360m	10	0.0	.80	2.7	1.6m	.40	2	7	B9	FL3a				
13	#	MD6205	512	4	SC	BTX	60n	625m	0.0	5.0	.85	2.0	15m	.45	0	7	B51	ML1a				
14	#	MD5205	512	4	SC	BTX	60n	625m	0.0	5.0	.85	2.0	10m	.40	5	C	B51	ML1a				
15		SN54S270J	512	4	SC	BTX	45n	853m	0.0	5.0	.80	2.0	12m	.50	5	C	B133	ML61a				
16		SN54S370J	512	4	SC	BTX	45n†	853m	0.0	5.0	.80	2.0	12m	.50	5	C	B133	ML61a				
17		SN74S270J	512	4	SC	BTX	45n†	814m	0.0	5.0	.80	2.0			0	7	B133	ML61a				
18		SN74S270N	512	4	SC	BTX	45n†	814m	0.0	5.0	.80	2.0			0	7	B133	ML48				
19		SN74S370J	512	4	SC	BTX	45n†	814m	0.0	5.0	.80	2.0	15m	.50	0	7	B133	ML61a				
20		SN74S370N	512	4	SC	BTX	45n†	814m	0.0	5.0	.80	2.0	15m	.50	0	7	B133	ML48				
21		6205D	512	4	SC	BTX	60n	625m	0.0	5.0	.80	2.0	16m	.45	0	7	B126a	ML158				
22		6205J	512	4	SC	BTX	60n	625m	0.0	5.0	.80	2.0	16m	.45	0	7	B126a	ML157				
23		6205N	512	4	SC	BTX	60n	625m	0.0	5.0	.80	2.0	16m	.45	0	7	B126a	ML157				
24		6206D	512	4	SC	BTX	60n	625m	0.0	5.0	.80	2.0s	16m	.45	0	7	B126a	ML158				
25		6206J	512	4	SC	BTX	60n	625m	0.0	5.0	.80	2.0s	16m	.45	0	7	B126a	ML157				
26		6206N	512	4	SC	BTX	60n	625m	0.0	5.0	.80	2.0s	16m	.45	0	7	B126a	ML157				
27		5205D	512	4	SC	BTX	90n	625m	0.0	5.0	.80	2.0	10m	.45	5	C	B126a	ML158				
28		5205J	512	4	SC	BTX	90n	625m	0.0	5.0	.80	2.0	10m	.45	5	C	B126a	ML157				
29		5205N	512	4	SC	BTX	90n	625m	0.0	5.0	.80	2.0	10m	.45	5	C	B126a	ML157				
30		5206D	512	4	SC	BTX	90n	625m	0.0	5.0	.80	2.0s	10m	.45	5	C	B126a	ML158				
31		5206J	512	4	SC	BTX	90n	625m	0.0	5.0	.80	2.0s	10m	.45	5	C	B126a	ML157				
32		5206N	512	4	SC	BTX	90n	625m	0.0	5.0	.80	2.0s	10m	.45	5	C	B126a	ML157				
33	#	SFF70611KM#2	512	4	SC	MPA	700n	430m	12	5.0	.80	3.0	2.0m†	6.0	5	C		B119	ML95			
34	#	SFF70611KT#2	512	4	SC	MPA	700n	430m	12	5.0	.80	3.0	2.0m†	1.0	2	8		B119	ML95			
35		CRC3002-1-3#1	512	4	SC	MPC	1.5u	270m	12	12	.40+0	2.5			0	7		B5	ML59			
36		CRC3002-1-3XXX#2	512s	4	SC	MPC	1.5u	270m	12	12	.40+0	2.5			0	7	Avail.Std.Pr	B5	ML13a			
37		CRC3002-2-3#1	512	4	SC	MPC	1.5u	270m	12	12	.40+0	2.5			0	7		B5	FL10			
38		CRC3002-2-3XXX#2	512s	4	SC	MPC	1.5u	270m	12	12	.40+0	2.5			0	7	Avail.Std.Pr	B5	FL10			
39		RO1-2048#3	512s	4	SC	MPT	750n	130m†	24	0.0	-2.0	-2.4	3.0m		5	8	B5	B49	ML47			
40		N2430Y#2	512s	4	SC	MPX	500n†	1.1	12	12	10*	4.0			2	7		B26	ML21b			
41		N2431Y#2	512s	4	SC	MPX	500n†	1.1	12	12	10*	4.0			2	7		B26	ML21b			
42		N2435Y#2	512s	4	SC	MPX	500n†	1.1	12	12	10*	4.0			2	7		B26b	ML21b			
43		N2436Y#2	512s	4	SC	MPX	500n†	1.1	12	12	10*	4.0			2	7		B26b	ML21b			
44		MM4230D#2	512	4	SC	MPX	725n	480m	12	12	10*	4.0#			5	C	B26	ML118				
45		MM4230N#2	512	4	SC	MPX	725n	480m	12	12	10*	4.0#			5	C	B26	ML118				
46		MM4230Q#2	512	4	SC	MPX	725n	480m	12	12	10*	4.0#			5	C	B26	ML117				
47		MM5230D#2	512	4	SC	MPX	725n	480m	12	12	10*	4.0#			2	7		B26	ML118			
48		MM5230N#2	512	4	SC	MPX	725n	480m	12	12	10*	4.0#			2	7		B26	ML118			
49		MM5230Q#2	512	4	SC	MPX	725n	480m	12	12	10*	4.0#			2	7		B26	ML117			
50		MCM1110LA#2	512	4	SC	MPX	800n	600m	24	0.0	0.0†	-12†	10uΔ	-12	2	8		B75	ML95			
51		MCM1110LB	512	4	SC	MPX	800n	600m	24	0.0	0.0†	-12†	10uΔ	-12	2	8		B75a	ML95			
52		MM4213D#2	512s	4	SC	MPX	850n	175m	12	5.0	3.0*	1.0#	1.6m	.40	5	C	Non-Vol	B26	ML128			
53		MM4213N#2	512s	4	SC	MPX	850n	175m	12	5.0	3.0*	1.0#	1.6m	.40	5	C	Non-Vol	B26	ML118			
54		MM5213D#2	512s	4	SC	MPX	850n	175m	12	5.0	3.0*	1.0#	1.6m	.40	2	7	Non-Vol	B26	ML128			
55		MM5213N#2	512s	4	SC	MPX	850n	175m	12	5.0	3.0*	1.0#	1.6m	.40	2	7	Non-Vol	B26	ML118			
56		MM4231D#2	512	4	SC	MPX	950n	510m	12	5.0	3.0*	.80#			5	C	B26	ML118				
57		MM4231N#2	512	4	SC	MPX	950n	510m	12	5.0	3.0*	.80#			5	C	B26	ML118				
58		MM4231Q#2	512	4	SC	MPX	950n	510m	12	5.0	3.0*	.80#			5	C	B26	ML117				
59		MM5231D#2	512	4	SC	MPX	950n	510m	12	5.0	3.0*	.80#			2	7		B26	ML118			
60		MM5231N#2	512	4	SC	MPX	950n	510m	12	5.0	3.0*	.80#			2	7		B26	ML118			
61		MM5231Q#2	512	4	SC	MPX	950n	510m	12	5.0	3.0*	.80#			2	7		B26	ML117			
62		MM423#2	512s	4	SC	MPX	1.0u	420m	12	12	9.5*	5.0#			5	C	B26	ML30b				
63		MM523#2	512s	4	SC	MPX	1.0u	420m	12	12	9.5*	5.0#			2	7		B26	ML30b			
64		MM4224D#2	512s	4	SC	MPX	1.0u	480m	15	5.0	.80	2.4	1.6m	.40	5	C	B9a	ML130				
65		MM4225D#2	512s	4	SC	MPX	1.0u	480m	15	5.0	.80	2.4	1.6m	.40	5	C	B9a	ML130				
66		MM5224D#2																				

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)OP.MODE
PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	6 TYPE No.	ORGANIZATION				5 MAX ACCESS TIME (s)	MAX OPER. POWER (W)	RATED POWER SUP.		INPUT LOGIC LEVELS		MIN SINK CURRENT (A)	OPER. TEMP. RANGE (°C)	GENERAL DESCRIPTION	DRAWINGS		
		1 No. WORDS	2 BITS MODE		3 OP. CODE			4 STRUCTURE	NEG. (V)	POS. (V)	MAX '0' (V)				MIN '1' (V)	LOGIC/BLOCK	OUTLINE
			PER WORD	CODE													
1	S8614#2	512	5	SC	MPI	500n	595m	12	5.0	.60	3.7	0	7	C48	ML23b		
2	S8773#2	512	5	SC	MPI	550n*	595m	12	5.0	.60	3.7	0	6	C48	ML23b		
3	MCM1150LA#2	512	5	SC	MPX	800n	600m	24	0.0	.30	-16	10uΔ	-12	B77	ML94		
4	MCM1150LB	512	5	SC	MPX	800n	600m	24	0.0	.30	-16	10uΔ	-12	B77a	ML94		
5	TMS2500JC#1	512	5	SC	MX	400n	400m	12	5.0	1.0	3.5	3.2m	.80	B64	ML47d		
6	TMS2500NC#1	512	5	SC	MX	400n	400m	12	5.0	1.0	3.5	3.2m	.80	B64	ML72		
7	6247	512	8	BXD		60n	850m	0.0	5.0	.80	2.0	10m	.50	B127	ML47c		
8	5247	512	8	BXD		75n	850m	0.0	5.0	.80	2.0	8.0m	.50	B127	ML47c		
9	MF7110	512	8	DC	MPG	350n	850m	9.0	5.0	.80	3.0	1.6m	.40	B108	ML8		
10	FDR131Z#1	512	8	SC	MPX	1.5u	90m	14	0.0	-9.0	-2.0		0	B36	ML41		
11	DM7596D	512	8	S	BTX	100n		0.0	5.0	.80	2.0	12m	.40	B152	ML130		
12	DM7696D	512	8	S	BTX	100n		0.0	5.0	.80	2.0	12m	.40	B152	ML130		
13	DM8596D	512	8	S	BTX	100n		0.0	5.0	.80	2.0	12m	.40	B152	ML130		
14	DM8596N	512	8	S	BTX	100n		0.0	5.0	.80	2.0	12m	.40	B152	ML118		
15	DM8696D	512	8	S	BTX	100n		0.0	5.0	.80	2.0	12m	.40	B152	ML130		
16	DM8696N	512	8	S	BTX	100n		0.0	5.0	.80	2.0	12m	.40	B152	ML118		
17	C3304#1	512	8	SC	BDT	65n	918m	0.0	5.0	.85	2.0	15m	.45	B11g	ML34c		
18	A5240D	512	8	SC	BDT	150n	850m	0.0	5.0	.80	2.0	8.0m	.50	B131a	ML47c		
19	A5241D	512	8	SC	BDT	150n	850m	0.0	5.0	.80	2.0	8.0m	.50	B131a	ML47c		
20	A6240D	512	8	SC	BDT	150n	850m	0.0	5.0	.80	2.0	10m	.50	B131a	ML47c		
21	A6241D	512	8	SC	BDT	150n	850m	0.0	5.0	.80	2.0	10m	.50	B131a	ML47c		
22	N8205Y	512	8	SC	BTX	60n	850m	0.0	5.0	.85*	2.0	9.6m	.50	B32	ML47e		
23	SFF70612KM#1	512	8	SC	MPA	7.0n	460m	12	5.0	.80	3.0	2.0m	1.0	B96	ML95		
24	SFF70612KT#1	512	8	SC	MPA	7.0n	460m	12	5.0	.80	3.0	2.0m	1.0	B96	ML95		
25	M240D1B	512	8	SC	MPG	610n	470m	12	5.0	.55	2.5	2.4m	.40	B90	ML173		
26	2530I	512	8	SC	MPG	700n	730m	12	5.0	1.05	3.2	1.6m	.80	B112	ML174		
27	2530N	512	8	SC	MPG	700n	730m	12	5.0	1.05	3.2	1.6m	.80	B112	ML135		
28	3514-91-7R	512	8	SC	MPG	700n	500m	12	5.0	.55	1.25	2.4m	.40	B90	ML103		
29	M240D1A	512	8	SC	MPG	810n	470m	12	5.0	.55	2.5	2.4m	.40	B90	ML173		
30	3514-92-7R	512	8	SC	MPG	1.0u	500m	12	5.0	.55	1.25	2.4m	.40	B90	ML103		
31	MN1200	512	8	SC	MPG	1.2u	250m	14	0.0	-6.0	-1.01	1.6m	4.5	B148	ML34a		
32	MK2500P#1	512	8	SC	MPI	700n	476m	12	5.0	.80	2.4	1.6m	.40	B73	ML21		
33	MK2600P#1	512	8	SC	MPI	700n	476m	12	5.0	.80	2.4	1.6m	.40	B99	ML21		
34	MCM1140L#1	512	8	SC	MPX	800n	600m	14	14	.30	-16	10uΔ	-14	B76	ML94		
35	MM4232D#1	512	8	SC	MPX	1.0u	629m	12	5.0	1.0	3.0	1.6m	.40	B96	ML117		
36	MM4232N#1	512	8	SC	MPX	1.0u	629m	12	5.0	1.0	3.0	1.6m	.40	B96	ML118		
37	MM4232Q#1	512	8	SC	MPX	1.0u	629m	12	5.0	1.0	3.0	1.6m	.40	B96	ML117		
38	MM5232D#1	512	8	SC	MPX	1.0u	629m	12	5.0	1.0	3.0	1.6m	.40	B96	ML117		
39	MM5232N#1	512	8	SC	MPX	1.0u	629m	12	5.0	1.0	3.0	1.6m	.40	B96	ML118		
40	MM5232Q#1	512	8	SC	MPX	1.0u	629m	12	5.0	1.0	3.0	1.6m	.40	B96	ML117		
41	HN3250P	512	8	SC	MPX	7.0u	300m	14	0.0	-2.0	-5.4		2	B88	ML88a		
42	UA2596D4#1	512	8	SC	MX	900n	600m	20	0.0	.80*	2.7	1.6m	.40	B9c	ML31a		
43	UA2596D8#1	512	8	SC	MX	900n	600m	20	0.0	.80*	2.7	1.6m	.40	B9c	ML32		
44	UA3596D4#1	512	8	SC	MX	900n	600m	20	0.0	.80*	2.7	1.6m	.40	B9c	ML31a		
45	UA3596D8#1	512	8	SC	MX	900n	600m	20	0.0	.80*	2.7	1.6m	.40	B9c	ML32		
46	5340D	512	8	SE	BTX	90n	400m	0.0	5.0	.80	2.0	8.0m	.50	B130	ML47c		
47	6340D	512	8	SE	BTX	90n	400m	0.0	5.0	.80	2.0	10m	.50	B130	ML47c		
48	S8772#1	512	8	SS	MPI	450n	1.0	12	5.0	.60	4.0		0	A145	ML13b		
49	MCM1141L	512	8	SS	MPX	800n	600m	14	14	.30	-16	10uΔ	-14	B76	ML94		
50	2526I#2	512	9	SE	MPG	700n	730m	12	5.0	.60	3.4	1.6m	.50	B112	ML174		
51	2526N#2	512	9	SE	MPG	700n	730m	12	5.0	.60	3.4	1.6m	.50	B112	ML135		
52	EA4000	512	10	SC	MPX	725n	60u	12	12	.40	2.4	1.6m	.40	B38	ML41		
53	EA4079	512	10	SC	MPX	725n	205m	12	12	10	3.0		5	B38	ML41		
54	EA4080	512	10	SC	MPX	725n	205m	12	12	10	3.0		5	B38	ML41		
55	FDR146BZ	512	10	SC	MPX	725n	300m	28	0.0	-9.0	-2.0	20m	40	E13	ML118b		
56	FDR146Z	512	10	SC	MPX	725n	300m	28	0.0	-9.0	-2.0	20m	40	B71	ML41		
57	MRM4A512-10	512	10	SC	MX	330n	9.5	12	12	.40	2.5	1.6m	.40	B54	PL4		
58	S8771#1	512	10	SS	MPI	450n	1.0	12	5.0	.60	4.0		0	B109	ML13b		
59	S8771A	512	10	SS	MPI	450n	1.0	12	5.0	.60	4.0		0	B109a	ML13b		
60	S8771B	512	10	SS	MPI	450n	1.0	12	5.0	.60	4.0		0	B109a	ML13b		
61	S8829#1	512	10	SS	MPI	450n	1.0	12	5.0	.60	4.0		0	B109	ML13b		
62	MRM3B512-20	512	20	SC	MX	330n	9.5	12	12	.40	2.5	1.6m	.40	B54	PL4		
63	MRM2C512-40	512	40	SC	MX	330n	9.5	12	12	.40	2.5	1.6m	.40	B54	PL4		
64	MCS2017#2	576	7	DC	MPX	160n	200m	5.0	5.0	.80	3.5	1.6m	.40	C32	ML7		
65	S8564#1	768	10	SC	MPA	450n	1.0	12	5.0	.80	3.5	1.6m	.40	C47	ML13b		
66	MCS2025#2	896	9	DC	MPX	160n	300m	5.0	5.0	.80	3.5	1.6m	.40	C45	ML7		
67	MCS2024#2	896	9	DC	MPX	160n	300m	5.0	5.0	.80	3.5	1.6m	.40	C44	ML7		
68	UC6525K#4	1024	4	SC	MPX	900n	150m	5.0	5.0	.80	2.6	1.6m	.40	B9p	ML31a		
69	UC6525K#4	1024	4	SC	MPX	900n	150m	5.0	5.0	.80	2.6	1.6m	.40	B9p	FL3a		
70	UC7525K#4	1024	4	SC	MPX	900n	150m	5.0	5.0	.80	2.6	1.6m	.40	B9p	ML31a		
71	UC7525K#4	1024	4	SC	MPX	900n	150m	5.0	5.0	.80	2.6	1.6m	.40	B9p	ML31a		
72	UA2525D#4	1024	4	SC	MX	900n	360m	10	0.0	.80*	2.7	1.6m	.40	B9	ML31a		
73	UA3525D#4	1024	4	SC	MX	900n	360m	10	0.0	.80*	2.7	1.6m	.40	B9	ML31a		
74	UA3525F#4	1024	4	SC	MX	900n	360m	10	0.0	.80*	2.7	1.6m	.40	B9	FL3a		
75	RO1-2048#2	1024	2	SC	MPT	750n	135m	24	0.0	-2.0	-2.4	3.0m	5	B49	ML47		
76	MM4224D#3	1024	2	SC	MPX	1.0u	480m	15	5.0	.80	2.4	1.6m	.40	B9a	ML130		
77	MM4225D#3	1024	2	SC													

3. READ ONLY MEMORIES (ROMS)

IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)OP.MODE
PRG.CODE(4)STRUCT.(5)MAX ACC.TIME(6)TYPE No.

LINE No.	TYPE No.	ORGANIZATION		3 OP. 4	5	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		OPER. TEMP. RANGE CODE	GENERAL DESCRIPTION	DRAWINGS				
		1	2				MODE	STRUCTURE	MAX ACCESS TIME (s)	NEG. (V)	POS. (V)	MAX '0' (V)			MIN '1' (V)	(A)	@ OUT (V)	LOGIC/BLOCK	OUTLINE
1	S8829#2	1024\$	5	SS	MPI	450m	1.0	12	5.0	.60	4.0		0	7	Arc Tan PR 8x1024	B109	BL13b		
2	MCS2023	1024	8	DC	MPX	160n	300m	5.0	5.0	.80	3.5	1.6m	.40	2		8	B100	ML7	
3	A5280D	1024	8	SC	BTD	150n	850m	0.0	5.0	.80	2.0	8.0m	.50	5		C	B131	ML47c	
4	A5281D	1024	8	SC	BTD	150n	850m	0.0	5.0	.80	2.0	8.0m	.50	5	C	B131	ML47c		
5	A6280D	1024	8	SC	BTD	150n	850m	0.0	5.0	.80	2.0	10m	.50	0	7	B131	ML47c		
6	A6281D	1024	8	SC	BTD	150n	850m	0.0	5.0	.80	2.0	10m	.50	0	7	B131	ML47c		
7	MCM6560L#1	1024	8	SC	MNA	350n	600m	0.0	5.0	.80	4.0	1.6m	.40	0	7	B121	ML150		
8	MCM6830L	1024	8	SC	MNG	575n	650m	0.0	5.0	.45%	2.4	1.6m	.45	0	7	B147	ML150		
9	5255D	1024	10		BXD	150n	450m	0.0	5.0	.80	2.0	6.0m	.50	5	C	B125	ML47c		
10	6255D	1024	10		BXD	150n	450m	0.0	5.0	.80	2.0	6.0m	.50	0	7	Sine P2 Sine P2	B125	ML47c	
11	5086D	1024	10	SC	BTD	150n	500m	0.0	5.0	.80	2.0	6.0m	.50	5	C		B125	ML47c	
12	6086D	1024	10	SC	BTD	150n	500m	0.0	5.0	.80	2.0	6.0m	.50	0	7		B125	ML47c	
13	MRM4B1024-10																		
14	EA3800	1024	12	DC	MPX	2.5u	350m	12	12	-2.0	-10			0	7	Sine Program	B54	PL4	
15	EA3801	1024	12	DC	MPX	2.5u	350m	12	12	-2.0	-10			0	7		B93	ML7	
16	EA3815	1024	12	DC	MPX	2.5u	350m	12	12	-2.0	-10			0	7		B93	ML7	
17	FDY850Z	1024	12	DC	MPX	2.5u*	368m	24	0.0	-10	-2.0			0	7	B97	ML7		
18	MRM3C1024-20																		
19	MCS2022#2	1152	7	DC	MPX	160n	300m	5.0	5.0	.80	3.5	1.6m	.40	0	7	7x9x128	B54	PL4	
20	RO1-2048#1	2048\$	1	SC	MPT	750n	140m	24	0.0	-2.0	-2.4	3.0m		5	8		C34	ML7	
21	MM4224D#4	2048\$	1	SC	MPX	1.0u	480m	15	5.0	.80	2.4	1.6m	.40	5	C		B49	ML47	
22	MM4225D#4	2048\$	1	SC	MPX	1.0u	480m	15	5.0	.80	2.4	1.6m	.40	5	C	B9a	ML130		
23	MM5224D#4	2048\$	1	SC	MPX	1.0u	480m	15	5.0	.80	2.4	1.6m	.40	2	7	B9a	ML130		
24	MM5225D#4	2048\$	1	SC	MPX	1.0u	480m	15	5.0	.80	2.4	1.6m	.40	2	7	B9a	ML130		
25	UA2548#4	2048	1	SC	MXX	900n	600m	20	0.0	.80	2.7	1.6m	.40	5	C	B9a	ML31a		
26	UA3548#4	2048	1	SC	MXX	900n	600m	20	0.0	.80	2.7	1.6m	.40	2	7	PR Non-Vol RMM	B9a	ML31a	
27	HRM2048#1	2048\$	1\$	SE	TAX	500n	640m	0.0	5.0	2.0	.80			0	7		B91	ML113	
28	UC6548#1	2048\$	1	SS	MXX	1.0u	750m	15	5.0	.60	2.6			5	C		B9e	ML31a	
29	UC7548#1	2048\$	1	SS	MXX	1.0u	750m	15	5.0	.60	2.6			0	7	B9e	ML31a		
30	UA2596D4#3	2048	2	SC	MXX	900n	600m	20	0.0	.80	2.7	1.6m	.40	5	C	B9c	ML31a		
31	UA2596D8#3	2048	2	SC	MXX	900n	600m	20	0.0	.80	2.7	1.6m	.40	5	C	B9c	ML32		
32	UA3596D4#3	2048	2	SC	MXX	900n	600m	20	0.0	.80	2.7	1.6m	.40	2	7	B9c	ML31a		
33	UA3596D8#3	2048	2	SC	MXX	900n	600m	20	0.0	.80	2.7	1.6m	.40	2	7	B9c	ML32		
34	S8865	2048	4	DC	MPI	700n\$	611m	12	5.0	.90	3.5			0	6	fc10k	B110	ML13b	
35	RO1-8192	2048	4	DC	MPN	1.5u*	375m	12	5.0	.75	3.25	2.2m	1.5	0	7	B121a	ML150		
36	MCM6560L#2	2048	4	SC	MNA	350n	600m	0.0	5.0	.80	4.0	1.6m	.40	0	7		B111	ML174	
37	2580I	2048	4	SC	MPG	700n	730m	12	5.0	1.05	3.25	1.6m	.80	0	7		B111	ML133	
38	2580N	2048	4	SC	MPG	700n	730m	12	5.0	1.05	3.25	1.6m	.80	0	7	B111	ML133		
39	RO1492C	2048	4	SC	MXG	450n	391m	12	5.0	.80	3.25	1.6m	.40	0	6	B136	ML47b		
40	MCS2026	2048	8	DC	MPX	450n\$	500m	12	5.0	.80	3.5	1.6m	.40	2	8	B124	ML7		
41	MCM6590L	2048	8	SC	MNG	800n	405m	3.0	17	.80	3.0	1.6m	.40	0	7	B144	ML150		
42	2316	2048	8	SC	MNG	2.0u	150m	0.0	5.0	.65	2.2	1.6m	.45	0	7	B78	ML7		
43	S9996#1	2048	8	SC	MPI	1.5u\$	240m	12	5.0	.90	3.5			0	6	A146	ML34d		
44	S9996#2	2048	8	SC	MPI	1.5u\$	240m	12	5.0	.90	3.5			0	6	A146	ML155		
45	EA4900#1	2048	8	SC	MPX	950n	1.2	12	5.0	5.6	3.5			0	6	B94	ML41		
46	EA4900#2	2048	8	SC	MPX	950n	1.2	12	5.0	5.6	3.5			0	6	B94	ML168		
47	FDR151BZ	2048	8	SC	MPX	1.2u	525m	12	5.0	3.5	.60	1.6m	.40	0	7	B94	ML118b		
48	FDR151Z	2048	8	SC	MPX	1.2u	525m	12	5.0	3.5	.60	1.6m	.40	0	7	B94	ML41		
49	MRM4C2048-10																		
50	UA2596D4#4	4096	1	SC	MXX	900n	600m	20	0.0	.80	2.7	1.6m	.40	5	C	B54	PL4		
51	UA2596D8#4	4096	1	SC	MXX	900n	600m	20	0.0	.80	2.7	1.6m	.40	5	C		B9c	ML31a	
52	UA3596D4#4	4096	1	SC	MXX	900n	600m	20	0.0	.80	2.7	1.6m	.40	2	7		B9c	ML32	
53	UA3596D8#4	4096	1	SC	MXX	900n	600m	20	0.0	.80	2.7	1.6m	.40	2	7	B9c	ML31a		
54	2317	4096	4	SC	MNG	2.0u	150m	0.0	5.0	.65	2.2	1.6m	.45	0	7	B9c	ML32		
55	S8996#1	4096	4	SC	MPI	1.5u\$	240m	12	5.0	.90	3.5			0	6	B78a	ML7		
56	S8996#2	4096	4	SC	MPI	1.5u\$	240m	12	5.0	.90	3.5			0	6	Random PR	A146	ML34d	
57	5260D	9216	9		BXD	150n	450m	0.0	5.0	.80	2.0	6.0m	.50	5	C	A146	ML155		
58	6260D	9216	9		BXD	150n	450m	0.0	5.0	.80	2.0	6.0m	.50	0	7	B128	ML47c		

4. CHARACTER GENERATORS

IN ORDER OF (1)USE CODE(2)No.CHARACTERS
(3)No.BITS/CHAR(4)No.OUT(5)STRUCT(6)TYPE No.

LINE No.	TYPE No.	USE CODE	No. CHARACTERS	BITS PER CHAR.	No. OUT-PUTS	STRUC TURE CODE	MAX ACCESS TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT @ OUT (V)	OPER. TEMP. RANGE CODE	DRAWINGS		
									NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)			LOGIC/ BLOCK	OUTLINE	
1#	FDR13122	DAC	64	35	7	MPX	1.5u	90m	14	0.0	-9.0	-2.0		0 7	C8	ML41	
2	RO1-2240	DAR	64	35	5	MPT	500n	250m	25	0.0	-1.5*	-2.4#		0 7	C9	ML47	
3#	FDR11621	DAR	64	35	5	MPX	850n	90m	14	0.0	-9.0	-2.0		5 8	C7	ML41	
4#	FDR11622	DAR	64	35	5	MPX	850n	90m	14	0.0	-9.0	-2.0		5 8	C7	ML41	
5	MCS2024#1	DCC	128	63	9	MPX	160n	300m	5.0	5.0	.80	3.5	1.6m	.40	2 8	C44	ML7
6	MCS2020#1	DCR	32	70	7	MPX	160n	200m	5.0	5.0	.80	3.5	1.6m	.40	2 8	C34	ML7
7	MCS2018#1	DCR	32	120	10	MPX	160n	200m	5.0	5.0	.80	3.5	1.6m	.40	2 8	C33	ML7
8	MCS2017#1	DCR	64	63	7	MPX	160n	200m	5.0	5.0	.80	3.5	1.6m	.40	2 8	C32	ML7
9	MCS2025#1	DCR	64	120	10	MPX	160n	300m	5.0	5.0	.80	3.5	1.6m	.40	2 8	C45	ML7
10	MCS2022#1	DCR	128	63	7	MPX	160n	300m	5.0	5.0	.80	3.5	1.6m	.40	2 8	C43	ML7
11	MCM1130L#2	SAC	32	70	14	MPX	500n	400m	14	14	.30	-16	1.0uA	.20	2 8	C52	ML96
12	MK2000P#2	SAC	32	70\$	14	MPX	700n	84m	28	0.0	-3.0*	-11#	2.0m	-2.0	2 8	C10a	ML29
13	MM6056	SAC	64	35	7	BTX	175n	675m	0.0	5.0	.80	2.0	6.0m	.45	0 7	C52	ML47c
14	MCS2027	SAC	64	35	7	MPC	450m	12	5.0	.80	3.5	1.6m	.40	2 7			
15	MCS2028	SAC	64	35	7	MPC	450m	12	5.0	.80	3.5	1.6m	.40	2 7			
16	MCS1004	SAC	64	35	7	MPC	950n	450m	12	12	-3.0	-9.0		2 8	C28a		
17	MCS1005	SAC	64	35	7	MPC	950n	450m	12	12	-3.0	-9.0		2 8	C28b		
18	MCM1130L#1	SAC	64	35	7	MPX	500n	400m	14	14	.30	-16	1.0uA	.20	2 8		ML95
19	MCM1131L	SAC	64	35	7	MPX	500n	400m	14	14	.30	-16	1.0uA	-.14	2 8	C28	ML95
20	MCM1132L	SAC	64	35	7	MPX	500n	400m	14	14	.30	-16	1.0uA	-.14	2 8	C28a	ML96
21	MK2000P#1	SAC	64	35\$	7	MPX	700n	84m	28	0.0	-3.0*	-11#	2.0m	-2.0	2 8	C10	ML29
22	MK2002P	SAC	64	35	7	MPX	700n	84m	28	0.0	-3.0*	-11#	2.0m	-2.0	2 8	C10	ML29
23	TMS4103JC	SAC	64	35	7	MPX	700n	400m	28	0.0	-3.0	-9.0		2 8	C16	ML49	
24	TMS4103NC	SAC	64	35	7	MPX	700n	400m	28	0.0	-3.0	-9.0		2 8	C16	ML83	
25	UC7541-03	SAC	64	35	7	MPX	700n	200m	12	12	-3.0	-11	2.0m	.40	2 8	C16	ML24
26	3257-9-7C	SAC	64	35	7	MPX	1.0u	715m	12	5.0	.85	4.0	1.6m	.40	0 7	C18	ML52
27▼	2516IXCM2150	SAC	64	48	8	MPG	500n	730m	12	5.0	1.0	3.2\$			0 7	C15b	ML174
28	2516NXCM2150	SAC	64	48	8	MPG	500n	730m	12	5.0	1.0	3.2\$			0 7	C15b	ML50
29	MM6074	SAC	64	63	9	BTX	175n	675m	0.0	5.0	.80	2.0	6.0m	.45	0 7	C58	ML47c
30▼	S8771D	SAC	64	63	10	MPI	450n	12	5.0	.60	4.0			0 6	B109a	ML13b	
31#	FDR146BZ1	SAC	64	80	10	MPX	725n	300m	28	0.0	-9.0	-2.0	1.6m	.40	5 8	E13	ML118b
32#	FDR146Z1	SAC	64	80	10	MPX	725n	300m	28	0.0	-9.0	-2.0	1.6m	.40	5 8	E13	ML41
33	EA4001	SAC	64	80	10	MPX	475m	60u\$	30 #	50 #	-2.0	-9.0			5 8	C5	ML41
34	MM6062	SAC	128	35	7	BTX	175n	675m	0.0	5.0	.80	2.0	6.0m	.45	0 7	C54	ML47c
35	MM6073	SAC	128	63	9	BTX	175n	675m	0.0	5.0	.80	2.0	6.0m	.45	0 7	C57	ML47c
36	MCM6581L	SAC	128	64	9	MNX	400n	700m	0.0	5.0	.80	4.0	1.6m	.40	0 7	C51	ML150
37	MCM6583L	SAC\$	128	64	9	MNX	400n	700m	0.0	5.0	.80	4.0	1.6m	.40	0 7	C51	ML150
38	S8866	SAR	64	7	9	MPI	450n	1.0	12	5.0	.60	4.0		0 7	C49	ML13b	
39	S8614#3	SAR	64	7	5	MPI	500n	595m	12	5.0	.60	3.7		0 7	C48	ML23b	
40#	MF7107	SAR	64	9	7	MPG	350n	1.0	9.0	5.0	.80	3.0	1.6m	.40	0 7	C46	ML8
41#	S8564#2	SAR	64	9	7	MPI	450n	1.0	12	5.0	.60	4.0		0 6	C47	ML13b	
42▼	S8564A	SAR	64	9	7	MPI	450n	1.0	12	5.0	.60	4.0		0 6	C47	ML13b	
43	3260-91-7R	SAR	64	9	7	MXG		560m	0.0	5.0	.80	4.0	2.4m	.40	0 7	C40	ML103
44	3260-92-7R	SAR	64	9	7	MXG		560m	0.0	5.0	.80	4.0	2.4m	.40	0 7	C40	ML103
45	ME511	SAR	64	35	5			254m	8.9	12	.40%	2.4		0 7	C22	ML44	
46▼	MM6055	SAR	64	35	5	BTX	100n	625m	0.0	5.0	.85	2.0	8.0m	.45	0 7	C59	ML106
47▼	S8773B	SAR	64	35	5	MPI	550n	595m	12	5.0	.60	3.7		0 6	C48	ML23b	
48	MK2408P	SAR	64	35	10	MPI	600n	425m	12	5.0	.80	-1.5	1.6m	.40	0 7		ML29
49	MK2302P	SAR	64	35	7	MPI	1.0u	40m	12	5.0	.60	3.5	2.0m	.40	0 7	C12	ML21
50	CRC3504-1-2	SAR	64	35	5	MPN	800n	400m	12	5	.50	4.3	2.0m	.40	2 8	C35	ML13
51	CRC3504-2-2	SAR	64	35	5	MPN	800n	400m	12	5	.50	4.3	2.0m	.40	2 8	C36	FL4
52	CRC3505-1-2	SAR	64	35	5	MPN	800n	400m	12	5	.50	4.3	2.0m	.40	2 8	C35	ML13
53	CRC3505-2-2	SAR	64	35	5	MPN	800n	400m	12	5	.50	4.3	2.0m	.40	2 8	C36	FL4
54	MCM1121L	SAR	64	35	5	MPX	700n	450m	28	0.0	-9.0	-2.5	1.0uA	-.14	2 8	C27	ML96
55	MCM1122L	SAR	64	35	5	MPX	700n	450m	28	0.0	-9.0	-2.5	1.0uA	-.14	2 8	C27	ML96
56	3258-9-7K	SAR	64	35	5	MXG	600n	400m	12	5.0	.85	2.0			0 7	C19	ML57
57	TMS2501JC	SAR	64	35	5	MXX	400n	400m	12	5.0	1.0	3.5	3.2m	.80	2 8	B64	ML47d
58	TMS2501NC	SAR	64	35	5	MXX	400n	400m	12	5.0	1.0	3.5	3.2m	.80	2 8	B64	ML72
59	UA3540D4	SAR	64	35	5	MXX	600n	540m	15	5.0	.80	2.6	2.0uA	-5.0	2 7	B9g	ML31a
60	UA3540D8	SAR	64	35	5	MXX	600n	540m	15	5.0	.80	2.6	2.0uA	-5.0	2 7	B9h	ML32
61▼	2513IXCM2140	SAR	64	40	5	MPG	500n	730m	12	5.0	1.0	3.2\$			0 7	C15	ML174
62	2513NXCM2140	SAR	64	40	5	MPG	500n	730m	12	5.0	1.0	3.2\$			0 7	C15	ML50
63	MM6071	SAR	64	63	7	BTX	175n	675m	0.0	5.0	.80	2.0	6.0m	.45	0 7	C55	ML47c
64	N8228ICD162	SAR\$	64	64	4	BTX	75n	125u\$	0.0	5.0	.85	2.0	11m	.50	0 7	B29	ML107
65	MM6061	SAR	128	35	5	BTX	175n	675m	0.0	5.0	.80	2.0	6.0m	.45	0 7	C53	ML47c
66	EA4004	SAR	128	35	10\$	MPX	725n	450m	12	12	.10	3.0	1.6m	.40	5 8	C41	ML41
67#	FDR146BZ2	SAR	128	35	10	MPX	725n	300m	28	0.0	-9.0	-2.0	1.6m	.40	5 8	E13	ML118b
68#	FDR146Z2	SAR	128	35	10	MPX	725n	300m	28	0.0	-9.0	-2.0	1.6m	.40	5 8	E13	ML41
69	MM6072	SAR	128	63	7	BTX	175n	675m	0.0	5.0	.80	2.0	6.0m	.45	0 7	C56	ML47c
70	S8499#2	SAS	64	35													

IN ORDER OF (1)USE CODE(2)No.CHARACTERS
(3)No.BITS/CHAR(4)No.OUT(5)STRUCT(6)TYPE No.

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IN ORDER OF (1)No.WDS(2)No.BITS/WD(3)MODE
(4)STRUCT.(5)MAX.SEARCH TIME(6)TYPE No.

6. CODE CONVERTERS

IN ORDER OF(1)FROM CODE(2)TO CODE(3)No.WORDS
(4)No.INPUT BITS(5)No.OUTPUT BITS(6)TYPE No.

LINE No.	TYPE No.	CONVER- SION CODE		3 No. WORDS	No. CODE BITS		M O D	STRUC TURE	MAX ACCESS TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT		OPER. TEMP. RANGE CODE	DRAWINGS	
		1	2		4	5					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)	(A)	@ OUT (V)		LOGIC/ BLOCK	OUTLINE
1	MCM6561L#6	1	2	128	8	8	S	MNA	350n	600m	0.0	5.0	.40%	2.4	1.6m	.40	0 7	B121	ML150
2	MCM6591L#3	1	2	128	11	8	S	MNG	800n	405m	3.0	17	.80	3.0s	1.6m	.40	0 7	B144	ML150
3	MD5200-0004	1	2	256	4	4	S	BTC	50n	575m	0.0	5.5	.80	2.0	10m	.40	5 C	B50	ML10a
4	MD5200-0005	1	2	256	4	4	S	BTC	50n	575m	0.0	5.5	.80	2.0	10m	.40	5 C	B50	ML10a
5	MD6200-0004	1	2	256	4	4	S	BTC	50n	575m	0.0	5.5	.85	2.0	15m	.45	0 7	B50	ML10a
6	MD6200-0005	1	2	256	4	4	S	BTC	50n	575m	0.0	5.5	.85	2.0	15m	.45	0 7	B50	ML10a
7	CRC3502-1-2	1	2	256	7	8	S	MPX	800n	400m	0.0	5.0	.50	4.3	2.0m	.40	2 8		ML28
8	CRC3502-2-2	1	2	256	7	8	S	MPX	800n	400m	0.0	5.0	.50	4.3	2.0m	.40	2 8		FL4
9	N8224CB180	1	2	256	7	8	S	BTX	50n	400m	0.0	5.0	.40%		9.6m	.40	0 7	B67	
10	N8204YCB505	1	2	256	8	8	S	BTX	60n	895m	0.0	5.0	.85*	2.0t	9.6m	.50	0 7	E1a	ML47a
11	MK2503P#1	1	2	512	8	8	S	MPI	700n	476m	12	5.0	.40	2.4s	1.6m	.40	0 7	B73	ML21
12	MK2601P#1	1	2	512	8	8	S	MPI	700n	476m	12	5.0	.40	2.4s	1.6m	.40	0 7	B99	ML21
13	N8205YCB175#1	1	2	512	8	8	S	BTX	60n	895m	0.0	5.0	.85*	2.0t	9.6m	.50	0 7	E1	ML47a
14	EA4015#1	1	2	512	8	10	S	MPX	725n	450m	12	12	10	3.0	1.6m	.40	5 8	E14	ML41
15	FDR131Z1#1	1	2	512	9	8	D	MPX	1.5u	100m	14	0.0	-9.0	-2.0		0 7	B36	ML41	
16	MCM6561L#2	1	3	128	8	8	S	MNA	350n	600m	0.0	5.0	.40%	2.4	1.6m	.40	0 7	B121	ML150
17	MCM6591L#1	1	3	128	11	8	S	MNG	800n	405m	3.0	17	.80	3.0s	1.6m	.40	0 7	B144	ML150
18	FDR126Z1#1	1	3	256	8	10	D	MPX	1.0u	100m	14	0.0	-9.0	-2.0		5 8	B35	ML41	
19	MCM1151L#1	1	3	256	8	10	S	MPX	800n	600n	24	0.0	.30	-16	10uΔ	.40	2 8	B77	ML95
20	MCM6561L#4	1	6	128	8	8	S	MNA	350n	600m	0.0	5.0	.40%	2.4	1.6m	.40	0 7	B121	ML150
21	S8539#2	1	6	128	8	12	S	MPI	1.0u	100m	12	5.0	.70	4.0	1.6m	.40	0 7	B92	ML13b
22	MCM6591L#4	1	6	128	11	8	S	MNG	800n	405m	3.0	17	.80	3.0s	1.6m	.40	0 7	B144	ML150
23	2526/CM3940	2	1	64	9	9	S	MPG	700n	730m	12	5.0	.60	3.4	1.6m	.50	0 7	B112	ML135
24	MCM6591L#5	2	1	128	11	8	S	MNG	800n	405m	3.0	17	.80	3.0s	1.6m	.40	0 7	B144	ML150
25	MD5200-0002	2	1	256	4	4	S	BTC	50n	575m	0.0	5.5	.80	2.0	10m	.40	5 C	B50	ML10a
26	MD5200-0003	2	1	256	4	4	S	BTC	50n	575m	0.0	5.5	.80	2.0	10m	.40	5 C	B50	ML10a
27	MD6200-0002	2	1	256	4	4	S	BTC	50n	575m	0.0	5.5	.85	2.0	15m	.45	0 7	B50	ML10a
28	MD6200-0003	2	1	256	4	4	S	BTC	50n	575m	0.0	5.5	.85	2.0	15m	.45	0 7	B50	ML10a
29	MCM6561L#5	2	1	256	8	8	S	MNA	350n	600m	0.0	5.0	.40%	2.4	1.6m	.40	0 7	B121	ML150
30	N8204YCB504	2	1	256	8	8	S	BTX	60n	895m	0.0	5.0	.85*	2.0t	9.6m	.50	0 7	E1a	ML47a
31	CRC3503-1-2	2	1	256	8	9	S	MPN	800n	400m	12.0	5.0	0.5	4.3	2.0m	.40	2 8	C37	ML13
32	CRC3503-2-2	2	1	256	8	9	S	MPN	800n	400m	12.0	5.0	0.5	4.3	2.0m	.40	2 8	C38	FL4
33	N2430YCM0000	2	1	256	9	8	S	MPX	500n	1.1	12	12	10*			2 7		ML21b	
34	MK2503P#2	2	1	512	8	8	S	MPI	700n	476m	12	5.0	.40	2.4s	1.6m	.40	0 7	B73	ML21
35	MK2601P#2	2	1	512	8	8	S	MPI	700n	476m	12	5.0	.40	2.4s	1.6m	.40	0 7	B99	ML21
36	N8205YCB175#2	2	1	512	8	8	S	BTX	60n	895m	0.0	5.0	.85*	2.0t	9.6m	.50	0 7	E1	ML47a
37	EA4015#2	2	1	512	8	10	S	MPX	725n	450m	12	12	10	3.0	1.6m	.40	5 8	E14	ML41
38	FDR131Z1#2	2	1	512	9	8	D	MPX	1.5u	100m	14	0.0	-9.0	-2.0		0 7	B36	ML41	
39	MCM6561L#1	3	1	128	8	8	S	MNA	350n	600m	0.0	5.0	.40%	2.4	1.6m	.40	0 7	B121	ML150
40	MCM6591L#2	3	1	128	11	8	S	MNG	800n	405m	3.0	17	.80	3.0s	1.6m	.40	0 7	B144	ML150
41	FDR126Z1#2	3	1	256	8	10	D	MPX	1.0u	100m	14	0.0	-9.0	-2.0		5 8	B35	ML41	
42	MCM1151L#2	3	1	256	8	10	S	MPX	800n	600n	24	0.0	.30	-16	10uΔ	.40	2 8	B77	ML95
43	FLH561	4	5		6	6	S	BTC	25n	500m	0.0	5.0	.80	2.0	12m	.40	0 7		
44	FLH565	4	5		6	6	S	BTC	25n	500m	0.0	5.0	.80	2.0	12m	.40	2 8		
45	5548	4	5	256	6	6	S	BTX	40n	930m	0.0	5.0	.80	2.0			0 7		
46	FLH571	5	4		6	6	S	BTC	25n	500m	0.0	5.0	.80	2.0	12m	.40	0 7		
47	FLH575	5	4		6	6	S	BTC	25n	500m	0.0	5.0	.80	2.0	12m	.40	2 8		
48	SN74185AJ	5	4	64	6	6	S	BTC	25n	546m	0.0	5.25	.80	2.0	12m	.40	0 7		ML61a
49	SN74185AN	5	4	64	6	6	S	BTC	25n	546m	0.0	5.25	.80	2.0	12m	.40	0 7		ML48
50	SN74185AW	5	4	64	6	6	S	BTC	25n	546m	0.0	5.25	.80	2.0	12m	.40	0 7		MO004AG
51	5549	5	4	256	6	6	S	BTX	40n	930m	0.0	5.0	.80	2.0			0 7		
52	MCM4067AL%	5	4	256	8	9	S	BTX	50n	650m	0.0	5.0	.45%	2.5	12m	.45	0 7	E12	ML78
53	MCM4067L%	5	4	256	8	9	S	BTX	50n	650m	0.0	5.0	.45%	2.5	12m	.45	0 7	E12	ML5
54	MCM4068AL%	5	4	256	8	9	S	BTX	50n	650m	0.0	5.0	.45%	2.5	12m	.45	0 7	E12	ML78
55	MCM4068L%	5	4	256	8	9	S	BTX	50n	650m	0.0	5.0	.45%	2.5	12m	.45	0 7	E12	ML5
56	MCM6591L#6	6	1	128	11	8	S	MNG	800n	405m	3.0	17	.80	3.0s	1.6m	.40	0 7	B144	ML150
57	S8457#2	6	1	128	12	8	S	MPI	800n	1.0	12	5.0	.70	4.0	1.6m	.40	0 7	B89	ML13b
58	MCM6561L#3	6	1	256	8	8	S	MNA	350n	600m	0.0	5.0	.40%	2.4	1.6m	.40	0 7	B121	ML150
59	MM42380#1	6	1	256	9	8	S	MPX	1.0u	420m	12	12	0.5*	5.0#		5 C	B11b	ML30b	
60	MM52380#1	6	1	256	9	8	S	MPX	1.0u	420m	12	12	9.5*	5.0#		2 7	B11b	ML30b	
61	MCM1111L	6	1	256	12	8	S	MPX	800n	600m	24	0.0	0.0	-12	10uΔ	.40	2 8	B75	ML95
62	MCM1112L	6	1	256	12	8	S	MPX	800n	600m	24	0.0	0.0	-12	10uΔ	.40	2 8	B75	ML95
63	MCM4069AL%	6	1	256	12	8	S	BTX	40n	650m	0.0	5.0	.45%		12m	.45	0 7	E12a	ML98
64	MCM4070AL%	6	1	256	12	8	S	BTX	40n	650m	0.0	5.0	.45%		12m	.45	0 7	E12a	ML98
65	MM42380#2	6	1	512	9	8	S	MPX	1.0u	420m	12	12	9.5*	5.0#		5 C	B11b	ML30b	
66	MM52380#2	6	1	512	9	8	S	MPX	1.0u	420m	12	12	9.5*	5.0#		2 7	B11b	ML30b	
67	S9021	8	1	360	90	10	D	MPX	5.0m	200m	12	5.0	.70	4.0	1.6m	.40	0 7	E15	ML151
68	EA2007#1	8	1	396	99	10	D	MPX			12.0	5.0	.80	2.8	</				

7. SHIFT REGISTERS

IN ORDER OF (1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	TYPE No.	ORGANIZATION		OPER. CODE	MAX WORST CASE FREQ. (Hz)	MAX STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)			LOGIC/BLOCK	OUTLINE
1	1112	4	1	PPS			608m	0.0	8.0			55n			0	+	F220	PL1
2	AM25S08DC	4	1	PPS		BTB	480m	0.0	5.0	.80	2.0	17n	20m	.50	0	7	F285	ML89a
3	AM25S08DM	4	1	PPS		BTB	480m	0.0	5.0	.80	2.0	17n	20m	.50	0	7	F285	ML89a
4	AM25S08FM	4	1	PPS		BTB	480m	0.0	5.0	.80	2.0	17n	20m	.50	5	7	F285	FL33
5	AM25S08PC	4	1	PPS		BTB	480m	0.0	5.0	.80	2.0	17n	20m	.50	0	7	F285	ML15
6	AM25S09DC	4	1	PPS		BTB	600m	0.0	5.0	.80	2.0	17n	20m	.50	0	7	F295	ML89a
7	AM25S09DM	4	1	PPS		BTB	600m	0.0	5.0	.80	2.0	17n	20m	.50	5	7	F295	ML89a
8	AM25S09FM	4	1	PPS		BTB	600m	0.0	5.0	.80	2.0	17n	20m	.50	5	7	F295	FL33
9	AM25S09PC	4	1	PPS		BTB	600m	0.0	5.0	.80	2.0	17n	20m	.50	0	7	F295	ML15
10	AM25S10DC	4	1	PPS		BTB	425m	0.0	5.0	.80	2.0	17n	20m	.50	5	7	F286	ML89a
11	AM25S10DM	4	1	PPS		BTB	425m	0.0	5.0	.80	2.0	17n	20m	.50	5	7	F286	ML89a
12	AM25S10FM	4	1	PPS		BTB	425m	0.0	5.0	.80	2.0	17n	20m	.50	5	7	F286	FL33
13	AM25S10PC	4	1	PPS		BTB	425m	0.0	5.0	.80	2.0	17n	20m	.50	0	7	F286	ML15
14#	M5395P	4	1	PPS		BTX	250m	0.0	5.0	40% ϕ	2.4	60n	18m	.40	0	7	F36	TO116
15	SN54278J	4	1	PPS		BTX	400m	0.0	5.0	.80	2.0	46n	16m	.80	5	7	F273	ML66a
16	SN54278N	4	1	PPS		BTX	400m	0.0	5.0	.80	2.0	46n	16m	.80	5	7	F273	ML71
17	SN54278W	4	1	PPS		BTX	400m	0.0	5.0	.80	2.0	46n	16m	.80	5	7	F273	MO004AA
18	SN74278J	4	1	PPS		BTX	400m	0.0	5.0	.80	2.0	46n	16m	.80	0	7	F273	ML71
19	SN74278N	4	1	PPS		BTX	400m	0.0	5.0	.80	2.0	46n	16m	.80	0	7	F273	MO004AA
20	SN74278W	4	1	PPS		BTX	400m	0.0	5.0	.80	2.0	46n	16m	.80	0	7	F273	ML71
21	CM4035AE	4	1	PPS	2.0m ϕ	MCX	14m	0.0	10.0	.05%	9.95	300n	310u	9.5	5	7	F178	ML4g
22	MC894P	4	1	PPS	1.0M ϕ	BRX	225m	0.0	11	.57	.79	55n			0	7	F39	ML38
23	MC14035CL	4	1	PPS	1.0M ϕ	MCX	3.2m	0.0	5.0	.01%	4.99	700n			4	8	F259	ML127b
24	MC14035CP	4	1	PPS	1.0M ϕ	MCX	3.2m	0.0	5.0	.01%	4.99	700n			4	8	F259	ML81
25	MC14035AL	4	1	PPS	1.5M ϕ	MCX	4.8m	0.0	5.0	.01%	4.99	500n			5	7	F259	ML127b
26#	SIL4035BE	4	1	PPS	2.0M ϕ	MCA	14m	0.0	10	.05%	9.95	300n	750u	9.5	4	8	F178	MO001AG
27	CD4035AE	4	1	PPS	2.0M ϕ	MCX	14m	0.0	10	.05%	9.95	300n	310u	9.5	4	8	F178	MO001AG
28#	HBF4035AE	4	1	PPS	2.0M ϕ	MCX	14m	0.0	10	.05%	9.9	300n	310u	9.5	4	8	F178	MO001AG
29#	HBF4035AF	4	1	PPS	2.0M ϕ	MCX	14m	0.0	10	.05%	9.9	300n	310u	9.5	4	8	F178	ML127C
30#	MM5635AN	4	1	PPS	2.0M ϕ	MCX	500m	0.0	10	.05%	9.9	300n	850u	.50	3	8	F315	ML178
31	375AL	4	1	PPS	3.0M ϕ	BDX	960m	0.0	15	1.8%	13	600n	7.8m	1.8	3	7	F37a	ML127b
32	375BL	4	1	PPS	3.0M ϕ	BDX	576m	0.0	12	1.5%	10	500n	6.3m	1.5	5	7	F37a	ML127b
33	375CL	4	1	PPS	3.0M ϕ	BDX	576m	0.0	12	1.5%	10	500n	6.3m	1.5	3	8	F37a	ML89b
34	375DL	4	1	PPS	3.0M ϕ	BDX	576m	0.0	12	1.5%	10	500n	6.3m	1.5	3	8	F37a	ML127b
35	375ML	4	1	PPS	3.0M ϕ	BDX	960m	0.0	15	1.8%	13	600n	7.8m	1.8	5	7	F37a	ML127b
36	JANM38510/02801AAA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21a
37	JANM38510/02801AAB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21a
38	JANM38510/02801AAC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21a
39	JANM38510/02801ABA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21
40	JANM38510/02801ABB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21
41	JANM38510/02801ABC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21
42#	JANM38510/02801ACA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	ML137
43#	JANM38510/02801ACB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	ML137
44#	JANM38510/02801ACC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	ML137
45	JANM38510/02801ADA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL22
46	JANM38510/02801ADB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL22
47	JANM38510/02801ADC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL22
48	JANM38510/02801BAA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21a
49	JANM38510/02801BAB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21a
50	JANM38510/02801BAC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21a
51	JANM38510/02801BBA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21a
52	JANM38510/02801BBB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21
53	JANM38510/02801BBC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21
54#	JANM38510/02801BCA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	ML137
55#	JANM38510/02801BCB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	ML137
56#	JANM38510/02801BCC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	ML137
57	JANM38510/02801BDA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL22
58	JANM38510/02801BDB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL22
59	JANM38510/02801BDC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL22
60	JANM38510/02801CAA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21a
61	JANM38510/02801CAB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21a
62	JANM38510/02801CAC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21a
63	JANM38510/02801CBA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21
64	JANM38510/02801CBB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21
65	JANM38510/02801CBC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL21
66#	JANM38510/02801CCA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	ML137
67#	JANM38510/02801CCB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	ML137
68#	JANM38510/02801CCC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	ML137
69	JANM38510/02801CDA	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL22
70	JANM38510/02801CDB	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL22
71	JANM38510/02801CDC	4	1	PPS	3.0M*	BTX	20m	0.0	5.0	.70	2.0	250n	2.0m	.30	5	7	F155a	FL22
72	JANM38510/02801STD	4	1	PPS	3.0M*	BTX	49m	0.0	5.0	.70	2.0	200n	2.0m	.30	5	7	F93	FL35
73	SN54L95J	4	1	PPS	3.0M ϕ	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.30	5	7	F93	ML66b

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS/REG(2) No. REGISTERS
(3) OP. CODE(4) MAX. W/C FREQ(5) STRUCT(6) TYPE No

LINE No.	TYPE No.	ORGANIZATION			4 MAX WORST CASE FREQ. (Hz)	5 STRUC TURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS	3 OPER. CODE				NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		LOGIC/ BLOCK	OUTLINE				
1	SN54L95N	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.30	5	C	F155a	ML71
2	SN54L95T	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.30	5	C	F155a	TO84
3	SN54L99J	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.30	5	C	F94	ML61
4	SN54L99N	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.30	5	C	F94	ML48
5	SN74L95J	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.40	0	7	F155a	ML66b
6	SN74L95N	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.40	0	7	F155a	ML71
7	SN74L95T	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.40	0	7	F155a	TO84
8	SN74L99J	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.40	0	7	F94	ML61
9	SN74L99N	4	1	PPS	3.0M	BTX	19m	0.0	5.0	.70	2.0	200n	2.0m	.40	0	7	F94	ML48
10#	SIL4035BD	4	1	PPS	3.0M	MCA	6.0m	0.0	10	.05%	9.95	200n	650u	9.5	5	C	F178	MO001AG
11#	SIL4035BF	4	1	PPS	3.0M	MCA	6.0m	0.0	10	.05%	9.95	200n	650u	9.5	5	C	F178	MO001AC
12	CD4035AD	4	1	PPS	3.0M	MCX	6.0m	0.0	10	.05%	9.95	200n	450u	9.5	5	C	F178	MO001AE
13	CD4035AK	4	1	PPS	3.0M	MCX	6.0m	0.0	10	.05%	9.95	200n	450u	9.5	5	C	F178	MO004AG
14	CM4035AD	4	1	PPS	3.0M	MCX	6.0m	0.0	10	.05%	9.95	200n	450u	9.5	5	C	F178	ML4g
15	CM4035AF	4	1	PPS	3.0M	MCX	6.0m	0.0	10	.05%	9.95	300n	450u	9.5	5	C	F178	ML17
16#	HBC4035AD	4	1	PPS	3.0M	MCX	6.0m	0.0	10	.05%	9.9	200n	450u	9.5	5	C	F178	ML127C
17#	HBC4035AF	4	1	PPS	3.0M	MCX	6.0m	0.0	10	.05%	9.9	200n	450u	9.5	5	C	F178	ML127C
18#	HBC4035AK	4	1	PPS	3.0M	MCX	6.0m	0.0	10	.05%	9.9	200n	450u	9.5	5	C	F178	MO004AG
19#	MM4635AD	4	1	PPS	3.0M	MCX	500m	0.0	10	.05%	9.9	200n	1.2m	.50	5	C	F315	ML177
20#	MM4635AF	4	1	PPS	3.0M	MCX	500m	0.0	10	.05%	9.9	200n	1.2m	.50	5	C	F315	FL37
21	MSR4	4	1	PPS	5.0M		360m	0.0	5.0	.60	3.0				0	7	F78	
22#	MM54C95D	4	1	PPS	6.5M	MCX	500m	0.0	10	.80	3.0	160n	360u	.40	5	C	F309	ML179
23#	MM74C95N	4	1	PPS	6.5M	MCX	500m	0.0	10	.80	3.2	160n	360u	.40	0	7	F309	ML180
24#	FLJ231	4	1	PPS	10M	BTC	305m	0.0	5.0	.80	2.0	40n	16m	.40	0	7		
25#	FLJ235	4	1	PPS	10M	BTC	305m	0.0	5.0	.80	2.0	40n	16m	.40	2	8		
26#	AM93L00DC	4	1	PPS	10M	BTX	120m	0.0	5.0	.70	2.0	75n	4.9m	.30	0	7	F2	ML62
27#	AM93L00DM	4	1	PPS	10M	BTX	126m	0.0	5.0	.70	2.0	75n	4.9m	.30	5	C	F2	ML62
28#	AM93L00FM	4	1	PPS	10M	BTX	120m	0.0	5.0	.70	2.0	75n	4.9m	.30	0	7	F2	ML62
29#	AM93L00PC	4	1	PPS	10M	BTX	115m	0.0	5.0	.70	2.0	75n	4.9m	.30	5	C	F2	FL14
30	MC7496L	4	1	PPS	10M	BTX	240m	0.0	5.0	.40%	2.4	40n	16m	.40	0	7	F40	ML127b
31	N7494B	4	1	PPS	10M	BTX	175m	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F92	ML85
32	N7494R	4	1	PPS	10M	BTX	175m	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F92	ML21b
33	S5494E	4	1	PPS	10M	BTX	175m	0.0	5.0	.80	2.0	40n	16m	.40	5	C	F92	ML61c
34#	S5494F	4	1	PPS	10M	BTX	250m	0.0	5.0	.80	2.0	40n	16m	.40	5	C	F92	ML61d
35	S5494R	4	1	PPS	10M	BTX	175m	0.0	5.0	.80	2.0	40n	16m	.40	5	C	F92	ML21b
36#	S5494W	4	1	PPS	10M	BTX	250m	0.0	5.0	.80	2.0	40n	16m	.40	5	C	F92	FL25
37	SP3271B	4	1	PPS	10M	BTX	450m	0.0	5.0	.90%	2.1	60n	15m	.40	0	7	F124	ML85
38#	TL7494N	4	1	PPS	10M	BTX	304m	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F243	ML48b
39	93L00DC	4	1	PPS	15M	BTX	120m	0.0	5.0	.70	2.0	35n	3.2m	.30	0	7	F2	ML15a
40	93L00DM	4	1	PPS	15M	BTX	126m	0.0	5.0	.70	2.0	35n	3.2m	.30	5	C	F2	ML15a
41	93L00FC	4	1	PPS	15M	BTX	120m	0.0	5.0	.70	2.0	35n	3.2m	.30	0	7	F2	FL14
42	93L00FM	4	1	PPS	15M	BTX	126m	0.0	5.0	.70	2.0	35n	3.2m	.30	5	C	F2	FL14
43	DM7600D	4	1	PPS	15M	BTX		0.0	5.0	.90	1.4	45n	7.4m	.40	5	C	F61	ML63
44	DM8600D	4	1	PPS	15M	BTX		0.0	5.0	.85	1.6	45n	9.6m	.45	0	7	F61	ML63
45	DM8600N	4	1	PPS	15M	BTX		0.0	5.0	.85	1.6	45n	9.6m	.45	0	7	F61	ML69
46	N8270A	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11m	.40	0	7	F124	ML86
47	N8270F	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11m	.40	0	7	F124	ML60a
48	N8270W	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11m	.40	0	7	F124	FL24
49	N8271B	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40	11m	.40	0	7	F124a	ML89a
50	N8271F	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40n	11m	.40	5	C	F124a	ML60a
51	N8271W	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40n	11m	.40	5	C	F124a	FL25
52#	N9300B	4	1	PPS	15M*	BTX	300m	0.0	5.0	.85	1.8	45n	600u	.45	0	7	F2	ML132
53#	N9300E	4	1	PPS	15M*	BTX	300m	0.0	5.0	.85	1.8	45n	600u	.45	0	7	F2	
54	S8270A	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11m	.40	5	C	F124	ML86
55	S8270F	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11m	.40	5	C	F124	ML60a
56	S8270W	4	1	PPS	15M	BTX	247m	0.0	5.0	.40%	2.6	40n	11m	.40	0	7	F124	FL24
57	S8271B	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40	11m	.40	5	C	F124a	ML89a
58	S8271F	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40n	11m	.40	5	C	F124a	ML60a
59	S8271W	4	1	PPS	15M	BTX	344m	0.0	5.0	.40%	2.6	40n	11m	.40	5	C	F124a	FL25
60#	S9300B	4	1	PPS	15M*	BTX	300m	0.0	5.0	.85	1.8	45n	600u	.45	0	7	F2	ML132
61#	S9300E	4	1	PPS	15M*	BTX	300m	0.0	5.0	.85	1.8	45n	600u	.45	0	7	F2	
62	JANM38510/00901AAA	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL21a
63	JANM38510/00901AAB	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL21a
64	JANM38510/00901AAC	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL21a
65	JANM38510/00901ABA	4	1	PPS	16M	BTX	422m	0.0	5.0	.80	2.0	49n	16m	.40	5	C	F36	FL21
66	JANM38510/00901ABB	4	1	PPS	16M	BTX	422m											

7. SHIFT REGISTERS

IN ORDER OF(1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	6	TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
			1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	@ OUT (V)			LOGIC/ BLOCK	OUTLINE
1		JANM38510/00901CAA	4	1	PPS	16M	BTX	422mW	0.0	5.0	.80	2.0	49n	16m	.40		5 C	F36	FL21a
2		JANM38510/00901CAB	4	1	PPS	16M	BTX	422mW	0.0	5.0	.80	2.0	49n	16m	.40		5 C	F36	FL21a
3		JANM38510/00901CAC	4	1	PPS	16M	BTX	422mW	0.0	5.0	.80	2.0	49n	16m	.40		5 C	F36	FL21a
4		JANM38510/00901CBA	4	1	PPS	16M	BTX	422mW	0.0	5.0	.80	2.0	49n	16m	.40		5 C	F36	FL21
5		JANM38510/00901CBB	4	1	PPS	16M	BTX	422mW	0.0	5.0	.80	2.0	49n	16m	.40		5 C	F36	FL21
6		JANM38510/00901CBC	4	1	PPS	16M	BTX	422mW	0.0	5.0	.80	2.0	49n	16m	.40		5 C	F36	FL21
7		JANM38510/00901CCA	4	1	PPS	16M	BTX	422mW	0.0	5.0	.80	2.0	49n	16m	.40		5 C	F155	ML143
8		JANM38510/00901CCB	4	1	PPS	16M	BTX	422mW	0.0	5.0	.80	2.0	49n	16m	.40		5 C	F155	ML143
9		JANM38510/00901CCC	4	1	PPS	16M	BTX	422mW	0.0	5.0	.80	2.0	49n	16m	.40		5 C	F155	ML143
10		JANM38510/00901CDA	4	1	PPS	16M	BTX	422mW	0.0	5.0	.80	2.0	49n	16m	.40		5 C	F36	FL22
11		JANM38510/00901CDB	4	1	PPS	16M	BTX	422mW	0.0	5.0	.80	2.0	49n	16m	.40		5 C	F36	FL22
12		JANM38510/00901CDC	4	1	PPS	16M	BTX	422mW	0.0	5.0	.80	2.0	49n	16m	.40		5 C	F36	FL22
13		JANM38510/00905AEA	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	ML142
14		JANM38510/00905AEB	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	ML142
15		JANM38510/00905AEC	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	ML142
16		JANM38510/00905AFA	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	FL31
17		JANM38510/00905AFB	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	FL31
18		JANM38510/00905AFC	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	FL31
19		JANM38510/00905BEA	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	ML142
20		JANM38510/00905BEB	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	ML142
21		JANM38510/00905BEC	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	ML142
22		JANM38510/00905BFA	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	FL31
23		JANM38510/00905BFB	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	FL31
24		JANM38510/00905BFC	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	FL31
25		JANM38510/00905CEA	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	ML142
26		JANM38510/00905CEB	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	ML142
27		JANM38510/00905CEC	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	ML142
28		JANM38510/00905CFA	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	FL31
29		JANM38510/00905CFB	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	FL31
30		JANM38510/00905CFC	4	1	PPS	18M	BTX	360mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F132	FL31
31		SN54LS295AJ	4	1	PPS	20M	BTX	70mW	0.0	5.0	.70	2.0	70n	4.0m	.40		5 C	F282	ML66b
32		SN54LS295AW	4	1	PPS	20M	BTX	70mW	0.0	5.0	.70	2.0	70n	4.0m	.40		5 C	F282	MO004AA
33		SN74LS295AJ	4	1	PPS	20M	BTX	70mW	0.0	5.0	.80	2.0	70n	4.0m	.40		0 7	F282	ML66b
34		SN74LS295AN	4	1	PPS	20M	BTX	70mW	0.0	5.0	.80	2.0	70n	4.0m	.40		0 7	F282	ML71
35#		M53295P	4	1	PPS	20M*	BTX	82mW	0.0	5.0	.80	2.0	35n	16m	.40		0 7	F155	ML86b
36#		MIC5495AJ	4	1	PPS	20M	BTX	250mW	0.0	5.0	.80	2.0	35n	16m	.40		5 C	F70	TO116
37#		MIC6495AJ	4	1	PPS	20M	BTX	250mW	0.0	5.0	.80	2.0	35n	16m	.40		4 8	F70	TO116
38#		MIC7495AJ	4	1	PPS	20M	BTX	250mW	0.0	5.0	.80	2.0	35n	16m	.40		0 7	F70	TO116
39#		MIC7495AN	4	1	PPS	20M	BTX	250mW	0.0	5.0	.80	2.0	35n	16m	.40		0 7	F70	ML7
40		S5495A	4	1	PPS	20M	BTX	410mW	0.0	5.0	.80	2.0	35n	16m	.40		5 C	F36	ML86
41		S5495F	4	1	PPS	20M	BTX	410mW	0.0	5.0	.80	2.0	35n	16m	.40		5 C	F36	ML66b
42		SM61	4	1	PPS	20M	BTX	40mW	0.0	5.0	.80	2.0	40n	250uA	5.5		6 k	F250	ML9
43		SM63	4	1	PPS	20M	BTX	40mW	0.0	5.0	.80	2.0	35n	250uA	5.5		6 k	F250	ML9
44		SM71	4	1	PPS	20M	BTX	40mW	0.0	5.0	.80	2.0	40n	250uA	5.5		6 k	F250a	ML9
45		SM73	4	1	PPS	20M	BTX	40mW	0.0	5.0	.80	2.0	40n	250uA	5.5		6 k	F250a	ML9
46		SN7495N	4	1	PPS	20M	BTX	250mW	0.0	5.0	.80	2.0	35n	16m	.40		0 7	F70	ML71
47		SW7495J	4	1	PPS	20M	BTX	410mW	0.0	5.0	.80	2.0	35n	16m	.40		0 7	F36	ML93
48		SW7495N	4	1	PPS	20M	BTX	410mW	0.0	5.0	.80	2.0	35n	16m	.40		0 7	F36	ML64a
49#		T150B1	4	1	PPS	20M	BTX	300mW	0.0	5.0	.85	1.6	45n	9.6m	.45		0 7	F2	ML60
50#		T150D1	4	1	PPS	20M	BTX	300mW	0.0	5.0	.85	1.6	45n	9.6m	.45		0 7	F2	ML94
51#		T150D2	4	1	PPS	20M	BTX	300mW	0.0	5.0	.90	1.4	45n	9.6m	.40		5 C	F2	ML94
52		US5495A	4	1	PPS	20M	BTX	250mW	0.0	5.0	.80	2.0	40n	16m	.40		5 C	F70a	ML86a
53		US5495J	4	1	PPS	20M	BTX	250mW	0.0	5.0	.80	2.0	40n	16m	.40		5 C	F70a	FL20
54		US7495A	4	1	PPS	20M	BTX	250mW	0.0	5.0	.80	2.0	40n	16m	.40		0 7	F70a	ML86a
55		US7495J	4	1	PPS	20M	BTX	250mW	0.0	5.0	.80	2.0	40n	16m	.40		0 7	F70a	FL20
56		MC7270L	4	1	PPS	22M	BTX	180mW	0.0	5.0	.40%	2.6	40n	12m	.40		0 7	F235	TO116
57		MC7270P	4	1	PPS	22M	BTX	180mW	0.0	5.0	.40%	2.6	40n	12m	.40		0 7	F235	ML124
58		MC7271L	4	1	PPS	22M	BTX	180mW	0.0	5.0	.40%	2.6	40n	12m	.40		0 7	F235a	ML60b
59		MC7271P	4	1	PPS	22M	BTX	180mW	0.0	5.0	.40%	2.6	40n	12m	.40		0 7	F235a	ML5b
60		MC8270L	4	1	PPS	22M	BTX	180mW	0.0	5.0	.40%	2.6	40n	12m	.40		5 C	F235	TO116
61		MC8271L	4	1	PPS	22M	BTX	180mW	0.0	5.0	.40%	2.6	40n	12m	.40		5 C	F235a	ML60b
62		JANM38510/00906AEA	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F191	ML142
63		JANM38510/00906AEB	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F191	ML142
64		JANM38510/00906AEC	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F191	ML142
65		JANM38510/00906AFA	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F191	FL31
66		JANM38510/00906AFB	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F191	FL31
67		JANM38510/00906AFC	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F191	FL31
68		JANM38510/00906BEA	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40		5 C	F191	ML142
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7. SHIFT REGISTERS

IN ORDER OF(1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	6	TYPE No.	ORGANIZATION		3	4	MAX WORST CASE FREQ. (Hz)	5	MAX OPER. POWER DISS. (W)	RATED POWER SPAN	INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT (A)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS			
			1	2							NEG. (V)	POS. (V)					MAX '0' (V)	MIN '1' (V)	LOGIC/ BLOCK	OUTLINE
1		JANM38510/00906BFA	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40	5	C	F191	FL31	
2		JANM38510/00906BFB	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40	5	C	F191	FL31	
3		JANM38510/00906BFC	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40	5	C	F191	FL31	
4		JANM38510/00906CEA	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40	5	C	F191	ML142	
5		JANM38510/00906CEB	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40	5	C	F191	ML142	
6		JANM38510/00906CEC	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40	5	C	F191	ML142	
7		JANM38510/00906CFA	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40	5	C	F191	FL31	
8		JANM38510/00906CFB	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40	5	C	F191	FL31	
9		JANM38510/00906CFC	4	1	PPS	24M	BTX	372mW	0.0	5.0	.80	2.0	39n	16m	.40	5	C	F191	FL31	
10▼#		FLJ191	4	1	PPS	25M	BTC	330m	0.0	5.0	.80	2.0	35n	16m	.40	0	7			
11▼#		FLJ195	4	1	PPS	25M	BTC	330m	0.0	5.0	.80	2.0	35n	16m	.40	2	8			
12▼#		FLJ551	4	1	PPS	25M	BTC	330m	0.0	5.0	.80	2.0	24n	16m	.40	0	7			
13▼#		FLJ555	4	1	PPS	25M	BTC	330m	0.0	5.0	.80	2.0	24n	16m	.40	2	8			
14		SN54LS395J	4	1	PPS	25M	0	75m	0.0	5.0	.70	2.0	32n	4.0m	.40	5	C	F283	ML61a	
15		SN54LS395W	4	1	PPS	25M	0	75m	0.0	5.0	.70	2.0	32n	4.0m	.40	5	C	F283	MO004AG	
16		SN74LS395J	4	1	PPS	25M	0	75m	0.0	5.0	.80	2.0	32n	4.0m	.40	0	7	F283	ML61a	
17		SN74LS395N	4	1	PPS	25M	0	75m	0.0	5.0	.80	2.0	32n	4.0m	.40	0	7	F283	ML48	
18▼		AM9300DC	4	1	PPS	25M	0	425m	0.0	5.0	.80	2.0	45n	16m	.40	0	7	F2	ML89a	
19▼		AM9300DM	4	1	PPS	25M	0	430m	0.0	5.0	.80	2.0	45n	16m	.40	5	C	F2	ML62	
20▼		AM9300FM	4	1	PPS	25M	0	425m	0.0	5.0	.80	2.0	45n	16m	.40	0	7	F2	ML62	
21▼		AM9300PC	4	1	PPS	25M	0	430m	0.0	5.0	.80	2.0	45n	16m	.40	5	C	F2	FL14	
22		AMU6B930051X	4	1	PPS	25M	0	375m	0.0	5.0	.90	1.7	35n	7.4m	.40	5	C	F2	ML62	
23		AMU6B930059X	4	1	PPS	25M	0	400m	0.0	5.0	.85	1.8	35n	8.5m	.45	0	7	F2	ML62	
24		JANM38510/00901STD	4	1	PPS	25M	0	315m	0.0	5.0	.80	2.0	32n	16m	.40	5	C	F36	FL35	
25		MC8300L	4	1	PPS	25M	0	300m	0.0	5.0	.45	2.4	45n	12m	.45	0	7	F37	ML5	
26		MC8300P	4	1	PPS	25M	0	300m	0.0	5.0	.45	2.4	45n	12m	.45	0	7	F37	ML40a	
27		MC9300L	4	1	PPS	25M	0	300m	0.0	5.0	.40	2.4	45n	12m	.40	5	C	F37	ML5	
28		MIC9300-1D	4	1	PPS	25M	0	300m	0.0	5.0	.90	1.4	45n	8.5m	.40	5	C	F2	ML61	
29		MIC9300-5D	4	1	PPS	25M	0	300m	0.0	5.0	.85	1.6	45n	9.2m	.45	0	7	F2	ML61	
30#		MIC54194J	4	1	PPS	25M	0	195m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F89a	TO116	
31#		MIC64194J	4	1	PPS	25M	0	195m	0.0	5.0	.80	2.0	30n	16m	.40	4	8	F89a	TO116	
32#		MIC74194J	4	1	PPS	25M	0	195m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F89a	TO116	
33#		MIC74194N	4	1	PPS	25M	0	195m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F89a	ML	
34▼		N7495F	4	1	PPS	25M	0	315m	0.0	5.0	.80	2.0	32n	16m	.40	5	C	F36	ML93b	
35		N74194B	4	1	PPS	25M	0	195m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F132	ML85	
36▼		N74194F	4	1	PPS	25M	0	315m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F89a	ML61d	
37		N74194R	4	1	PPS	25M	0	195m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F132	ML21b	
38		S54194B	4	1	PPS	25M	0	195m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F132	ML85	
39		S54194E	4	1	PPS	25M	0	195m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F132	ML61c	
40▼		S54194F	4	1	PPS	25M	0	315m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F89a	ML61d	
41		S54194R	4	1	PPS	25M	0	195m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F132	ML21b	
42▼		S54194W	4	1	PPS	25M	0	315m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F89a	FL25	
43		SN54LS95BJ	4	1	PPS	25M	0	65m	0.0	5.0	.70	2.0	32n	4.0m	.40	5	C	F155	ML66b	
44		SN54LS95BW	4	1	PPS	25M	0	65m	0.0	5.0	.70	2.0	32n	4.0m	.40	5	C	F155	MO004AA	
45		SN54LS194AJ	4	1	PPS	25M	0	75m	0.0	5.0	.70	2.0	30n	4.0m	.40	5	C	F245	ML61a	
46		SN54LS194AW	4	1	PPS	25M	0	75m	0.0	5.0	.70	2.0	30n	4.0m	.40	5	C	F245	MO004AG	
47		SN74LS95BJ	4	1	PPS	25M	0	65m	0.0	5.0	.80	2.0	32n	4.0m	.40	0	7	F155	ML66b	
48		SN74LS95BN	4	1	PPS	25M	0	65m	0.0	5.0	.80	2.0	32n	4.0m	.40	0	7	F155	MO004AA	
49		SN74LS194AJ	4	1	PPS	25M	0	74m	0.0	5.0	.80	2.0	30n	4.0m	.40	0	7	F245	ML61a	
50		SN74LS194AN	4	1	PPS	25M	0	75m	0.0	5.0	.80	2.0	30n	4.0m	.40	0	7	F245	ML48	
51		SN5495AJ	4	1	PPS	25M	0	195m	0.0	5.0	.80	2.0	32n	16m	.40	5	C	F155	ML66b	
52		SN5495AW	4	1	PPS	25M	0	195m	0.0	5.0	.80	2.0	32n	16m	.40	5	C	F155	ML66b	
53		SN7495AJ	4	1	PPS	25M	0	195m	0.0	5.0	.80	2.0	32n	16m	.40	0	7	F155	ML66b	
54		SN7495AN	4	1	PPS	25M	0	195m	0.0	5.0	.80	2.0	32n	16m	.40	0	7	F155	ML66b	
55		SN54178J	4	1	PPS	25M	0	230m	0.0	5.0	.80	2.0	36n	16m	.40	5	C	F191	ML66a	
56		SN54178N	4	1	PPS	25M	0	230m	0.0	5.0	.80	2.0	36n	16m	.40	5	C	F191	ML71	
57		SN54178W	4	1	PPS	25M	0	230m	0.0	5.0	.80	2.0	36n	16m	.40	5	C	F191	MO004AA	
58		SN54179J	4	1	PPS	25M	0	230m	0.0	5.0	.80	2.0	36n	16m	.40	5	C	F191a	ML61a	
59		SN54179N	4	1	PPS	25M	0	230m	0.0	5.0	.80	2.0	36n	16m	.40	5	C	F191a	ML48	
60		SN54179W	4	1	PPS	25M	0	230m	0.0	5.0	.80	2.0	36n	16m	.40	5	C	F191a	MO004AG	
61		SN54194J	4	1	PPS	25M	0	195m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F89a	ML61a	
62		SN54194W	4	1	PPS	25M	0	195m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F89a	MO004AG	
63		SN74178J	4	1	PPS	25M	0	230m	0.0	5.0	.80	2.0	36n	16m	.40	0	7	F191	ML66a	
64		SN74178N	4	1	PPS	25M	0	230m	0.0	5.0	.80	2.0	36n							

7. SHIFT REGISTERS

IN ORDER OF (1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	TYPE No.	ORGANIZATION 3			MAX 4 WORST CASE FREQ. (Hz)	MAX 5 STRUC TURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS	OPER. CODE				NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		LOGIC/ BLOCK	OUTLINE				
1	SN74LS195AN	4	1	PPS	30M	BDT	70m	0.0	5.0	.80	2.0	30n	4.0m	.40	0	7	F108	ML48
2▼	DM7542J	4	1	PPS	30M	BTX	400m	0.0	5.0	.80	2.0	38n	16m	.40	5	C	F316	ML181
3▼	DM7542N	4	1	PPS	30M	BTX	400m	0.0	5.0	.80	2.0	38n	16m	.40	5	C	F316	ML178
4▼	DM7542W	4	1	PPS	30M	BTX	400m	0.0	5.0	.80	2.0	38n	16m	.40	5	C	F316	ML182
5▼	DM8542J	4	1	PPS	30M	BTX	400m	0.0	5.0	.80	2.0	38n	16m	.40	0	7	F316	ML181
6▼	DM8542N	4	1	PPS	30M	BTX	400m	0.0	5.0	.80	2.0	38n	16m	.40	0	7	F316	ML178
7▼	DM8542W	4	1	PPS	30M	BTX	400m	0.0	5.0	.80	2.0	38n	16m	.40	0	7	F316	ML182
8	MC54195L	4	1	PPS	30M	Δ BTX	195m	0.0	5.0	.40	2.4	30n	16m	.40	5	C	F108	ML127b
9	MC74195L	4	1	PPS	30M	Δ BTX	195m	0.0	5.0	.40	2.4	30n	16m	.40	0	7	F108	ML127b
10	MC74195P	4	1	PPS	30M	Δ BTX	195m	0.0	5.0	.40	2.4	30n	16m	.40	0	7	F108	ML81
11#	MIC54195J	4	1	PPS	30M	Δ BTX	315m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F192	TO116
12#	MIC64195J	4	1	PPS	30M	Δ BTX	315m	0.0	5.0	.80	2.0	30n	16m	.40	4	8	F192	TO116
13#	MIC74195J	4	1	PPS	30M	Δ BTX	315m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F192	TO116
14#	MIC74195N	4	1	PPS	30M	Δ BTX	315m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F192	ML7
15▼	N74S195B	4	1	PPS	30M	Δ BTX	315m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F108	ML132
16▼	N74S195J	4	1	PPS	30M	Δ BTX	315m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F108	ML171
17▼	N74S195W	4	1	PPS	30M	Δ BTX	315m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F108	FL25
18	N74195B	4	1	PPS	30M	Δ BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F108	ML85
19▼	N74195P	4	1	PPS	30M	Δ BTX	315m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F108	ML61d
20	N74195R	4	1	PPS	30M	Δ BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F108	ML21b
21▼	N74195W	4	1	PPS	30M	Δ BTX	315m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F108	FL25
22▼	S54S195J	4	1	PPS	30M	Δ BTX	315m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F108	ML171
23▼	S54S195W	4	1	PPS	30M	Δ BTX	315m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F108	FL25
24	S54195B	4	1	PPS	30M	Δ BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F108	ML85
25	S54195E	4	1	PPS	30M	Δ BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F108	ML61c
26▼	S54195F	4	1	PPS	30M	Δ BTX	315m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F108	ML61d
27	S54195R	4	1	PPS	30M	Δ BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F108	ML21b
28▼	S54195W	4	1	PPS	30M	Δ BTX	315m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F108	FL25
29	SN54195J	4	1	PPS	30M	Δ BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F108	ML61a
30	SN54195W	4	1	PPS	30M	Δ BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	5	C	F108	MO004AG
31	SN74195J	4	1	PPS	30M	Δ BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F108	ML61a
32	SN74195N	4	1	PPS	30M	Δ BTX	195m	0.0	5.0	.80	2.0	30n	16m	.40	0	7	F108	ML48
33	T9300F	4	1	PPS	30M	Δ BTX	483m	0.0	5.0	.80	2.0	35n	12m	.40	0	7	F249	FL14
34	T9300FM	4	1	PPS	30M	Δ BTX	473m	0.0	5.0	.80	2.0	35n	12m	.40	5	C	F249	FL14
35	T9300J	4	1	PPS	30M	Δ BTX	483m	0.0	5.0	.80	2.0	35n	12m	.40	0	7	F249	ML146
36	T9300JM	4	1	PPS	30M	Δ BTX	473m	0.0	5.0	.80	2.0	35n	12m	.40	5	C	F249	ML146
37	MC5495F	4	1	PPS	31M	Δ BTX	250m	0.0	5.0	.40	2.4	35n	10m	.40	5	C	F36	TO86
38	MC5495L	4	1	PPS	31M	Δ BTX	250m	0.0	5.0	.40	2.4	35n	10m	.40	5	C	F36	ML66
39	MC7495F	4	1	PPS	31M	Δ BTX	250m	0.0	5.0	.40	2.4	35n	10m	.40	0	7	F36	TO86
40	MC7495L	4	1	PPS	31M	Δ BTX	250m	0.0	5.0	.40	2.4	35n	10m	.40	0	7	F36	ML66
41	MC7495P	4	1	PPS	31M	Δ BTX	250m	0.0	5.0	.40	2.4	35n	10m	.40	0	7	F36	ML38
42#	MIC5495J	4	1	PPS	31M	Δ BTX	200m	0.0	5.0	.80	2.0	35n	16m	.40	5	C	F70	TO116
43#	MIC6495J	4	1	PPS	31M	Δ BTX	200m	0.0	5.0	.80	2.0	35n	16m	.40	4	8	F70	TO116
44#	MIC7495J	4	1	PPS	31M	Δ BTX	200m	0.0	5.0	.80	2.0	35n	16m	.40	0	7	F70	TO116
45#	MIC7495N	4	1	PPS	31M	Δ BTX	200m	0.0	5.0	.80	2.0	35n	16m	.40	0	7	F70	ML7
46	N7495A	4	1	PPS	31M	Δ BTX	200m	0.0	5.0	.80	2.0	35n	16m	.40	0	7	F36	ML86
47	MC4012L	4	1	PPS	35M	Δ BTX	180m	0.0	5.0	.90	1.8	25n	16m	.40	0	7	F31	ML66
48	MC4012P	4	1	PPS	35M	Δ BTX	180m	0.0	5.0	.90	1.8	25n	16m	.40	0	7	F31	ML38
49#	FJ231	4	1	PPS	36M	Δ BTX	195m	0.0	5.0	.80	2.0	32n	16m	.40	0	7	F155	ML58a
50	SN5495J	4	1	PPS	36M	Δ BTX	250m	0.0	5.0	.80	2.0	32n	16m	.40	5	C	F70	ML66a
51#	TL7495AN	4	1	PPS	36M	Δ BTX	330m	0.0	5.0	.80	2.0	32n	16m	.40	0	7	F244	ML71a
52	9300DC	4	1	PPS	38M	Δ BTX	483m	0.0	5.0	.80	2.0	26n	12m	.40	0	7	F2	ML15a
53	9300DM	4	1	PPS	38M	Δ BTX	473m	0.0	5.0	.80	2.0	26n	12m	.40	5	C	F2	ML15a
54	9300FC	4	1	PPS	38M	Δ BTX	483m	0.0	5.0	.80	2.0	26n	12m	.40	0	7	F2	FL14
55	9300FM	4	1	PPS	38M	Δ BTX	473m	0.0	5.0	.80	2.0	26n	12m	.40	5	C	F2	FL14
56	SN54S281J	4Δ	1	PPS	50M	Δ BTX	1.1	0.0	5.0	.80	2.0	55n	20m	.50	5	C	F272	MP7
57	SN54S281W	4Δ	1	PPS	50M	Δ BTX	950m	0.0	5.0	.80	2.0	55n	20m	.50	5	C	F272	MP7
58	SN74S281J	4Δ	1	PPS	50M	Δ BTX	1.1	0.0	5.0	.80	2.0	55n	20m	.50	0	7	F272	MP7
59	SN74S281N	4Δ	1	PPS	50M	Δ BTX	1.1	0.0	5.0	.80	2.0	55n	20m	.50	0	7	F272	MP7
60	93H00DC	4	1	PPS	55M	Δ BTX	588m	0.0	5.0	.80	2.0	21n	12m	.40	0	7	F2	ML15a
61	93H00DM	4	1	PPS	55M	Δ BTX	561m	0.0	5.0	.80	2.0	21n	12m	.40	5	C	F2	ML15a
62	93H00FC	4	1	PPS	55M	Δ BTX	588m	0.0	5.0	.80	2.0	21n	12m	.40	0	7	F2	FL14
63	93H00FM	4	1	PPS	55M	Δ BTX	561m	0.0	5.0	.80	2.0	21n	12m	.40	5	C	F2	FL14
64	93H72DC	4	1	PPS	60M	Δ BTX	708m	0.0	5.0	.80	2.0	21n	16m	.40	0	7	F141	ML15a
65	93H72DM	4	1	PPS	60M	Δ BTX	660m	0.0	5.0	.80	2.0	21n	16m	.40	5	C	F141	ML15a
66	93H72FC	4	1	PPS	60M	Δ BTX	708m	0.0	5.0	.80	2.0	21n	16m	.40	0	7	F141	FL14
67	93H72FM	4	1	PPS	60M	Δ BTX	660m	0.0										

7. SHIFT REGISTERS

IN ORDER OF (1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		@ OUT (V)	LOGIC/ BLOCK			OUTLINE	
1	95H00DC	4	1	PPS	190mT	BEX	551m	5.2	0.0	-1.4	1.1	7.5n	50m		0	+	F142	ML15a
2	MC794P	4	1	PSS	1.0M	BRX	225m	0.0	11	57	.79	55n			1	5	F39	ML38
3#	HD2533	4	1	PSS	10M	*BTX	304m	0.0	5.0	80	2.0	40n	16m	.40	2	7	F92	ML108
4#	HD2533P	4	1	PSS	10M	*BTX	304m	0.0	5.0	80	2.0	40n	16m	.40	2	7	F92	ML94a
5	MC5494L	4	1	PSS	10M	BTX	175m	0.0	5.0	0.4%	2.4	40n	16m	.40	5	C	F110	ML127b
6	MC7494L	4	1	PSS	10M	BTX	175m	0.0	5.0	0.4%	2.4	40n	16m	.40	0	7	F110	ML127b
7	MC7494P	4	1	PSS	10M	BTX	175m	0.0	5.0	0.4%	2.4	40n	16m	.40	0	7	F110	ML81
8	MC8394L	4	1	PSS	10M	BTX	175m	0.0	5.0	40%	2.4	40n	16m	.40	0	7	F110	ML127b
9	MC8394P	4	1	PSS	10M	BTX	175m	0.0	5.0	40%	2.4	40n	16m	.40	0	7	F110	ML81
10	MC9394L	4	1	PSS	10M	BTX	175m	0.0	5.0	40%	2.4	40n	16m	.40	5	C	F110	ML127b
11#	MIC5494J	4	1	PSS	10M*	BTX	175m	0.0	5.0	80	2.0	40n	16m	.40	5	C	F92	ML61
12#	MIC6494J	4	1	PSS	10M*	BTX	175m	0.0	5.0	80	2.0	40n	16m	.40	4	8	F92	ML61
13#	MIC7494J	4	1	PSS	10M*	BTX	175m	0.0	5.0	80	2.0	40n	16m	.40	0	7	F92	ML61
14#	MIC7494N	4	1	PSS	10M*	BTX	175m	0.0	5.0	80	2.0	40n	16m	.40	0	7	F92	ML7
15#	N7494F	4	1	PSS	10M	BTX	290m	0.0	5.0	80	2.0	40n	16m	.40	0	7	F92	ML61d
16	SN5494J	4	1	PSS	10M	BTX	175m	0.0	5.0	80	2.0	40n	16m	.40	5	C	F92	ML61
17	SN5494N	4	1	PSS	10M	BTX	175m	0.0	5.0	80	2.0	40n	16m	.40	5	C	F92	ML48
18	SN5494W	4	1	PSS	10M	BTX	175m	0.0	5.0	80	2.0	40n	16m	.40	5	C	F92	MO004AG
19	SN7494J	4	1	PSS	10M	BTX	175m	0.0	5.0	80	2.0	40n	16m	.40	0	7	F92	ML61
20	SN7494N	4	1	PSS	10M	BTX	175m	0.0	5.0	80	2.0	40n	16m	.40	0	7	F92	ML48
21	SN7494W	4	1	PSS	10M	BTX	175m	0.0	5.0	80	2.0	40n	16m	.40	0	7	F92	MO004AG
22	SW7494J	4	1	PSS	10M	BTX	290m	0.0	5.0	80	2.0	40n	16m	.40	0	7	F92	ML72
23	SW7494N	4	1	PSS	10M	BTX	290m	0.0	5.0	80	2.0	40n	16m	.40	0	7	F92	ML48
24	TSR2511F	4	1	PSS	25M	BTX	200m	0.0	5.0	45%	3.2	30n	20m	.45	5	C	F55	FL11a
25	TSR2511J	4	1	PSS	25M	BTX	200m	0.0	5.0	45%	3.2	30n	20m	.45	5	C	F55	TO116
26	TSR2512F	4	1	PSS	25M	BTX	200m	0.0	5.0	45%	3.2	30n	20m	.45	0	7	F55	FL11a
27	TSR2512J	4	1	PSS	25M	BTX	200m	0.0	5.0	45%	3.2	30n	20m	.45	0	7	F55	TO116
28	TSR2513F	4	1	PSS	25M	BTX	200m	0.0	5.0	45%	3.2	30n	10m	.45	5	C	F55	FL11a
29	TSR2513J	4	1	PSS	25M	BTX	200m	0.0	5.0	45%	3.2	30n	10m	.45	5	C	F55	TO116
30	TSR2514F	4	1	PSS	25M	BTX	200m	0.0	5.0	45%	3.2	30n	10m	.45	0	7	F55	FL11a
31#	MC1694L	4	1	SPS	325M	BEX	750m	5.2	0.0	-1.6	-.98				0	7	F173	ML60b
32	MC686L	4	1	SSS	500k%	*BTX	480m	0.0	15	1.5%	12.5	300n	12m	1.5	3	7	F234	ML60b
33	MC686P	4	1	SSS	500k%	*BTX	480m	0.0	15	1.5%	12.5	300n	12m	1.5	3	7	F234	ML5b
34#	H160D1	4	1	SSS	1.5M	BXX	500m	0.0	20	6.0	8.0	350n			0	7		
35	US5494A	4	1	SSS	10M*	BTX	250m	0.0	5.0	80	2.0	40n	1.6m	.40	5	C	F92	ML85a
36	US7494A	4	1	SSS	10M*	BTX	250m	0.0	5.0	80	2.0	40n	1.6m	.40	0	7	F92	ML85a
37#	HD2534	4	1	SSS	20M	*BTX	330m	0.0	5.0	80	2.0	35n	16m	.40	2	7	F155	ML100
38#	HD2534P	4	1	SSS	20M	*BTX	330m	0.0	5.0	80	2.0	35n	16m	.40	2	7	F155	ML64c
39#	FJJ321	4	1	SSS	25M	BTX	300m	0.0	5.0	80	2.0	35n	9.6m	.40	0	7		
40#	JANM38510/02804AEA	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	FL31
41#	JANM38510/02804AEB	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	FL31
42#	JANM38510/02804AEC	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	FL31
43#	JANM38510/02804AFA	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	ML143
44#	JANM38510/02804AFB	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	ML143
45#	JANM38510/02804AFC	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	ML143
46#	JANM38510/02804BEA	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	FL31
47#	JANM38510/02804BEB	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	FL31
48#	JANM38510/02804BEC	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	FL31
49#	JANM38510/02804BFA	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	ML143
50#	JANM38510/02804BFB	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	ML143
51#	JANM38510/02804BFC	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	ML143
52#	JANM38510/02804CEA	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	FL31
53#	JANM38510/02804CEB	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	FL31
54#	JANM38510/02804CEC	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	FL31
55#	JANM38510/02804CFA	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	ML143
56#	JANM38510/02804CFB	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	ML143
57#	JANM38510/02804CFC	4	1	SSS	25M	BTX	124m	0.0	5.0	.70	2.0	120n	3.2m	.30	5	C	F37	ML143
58	RH803	4	2	PPS	500k	BXX	2.2	0.0	15	1.0t	15t				0	7	F263	
59	MSR8	4	2	PPS	5.0M		360m	0.0	5.0	.60	3.0				0	7		
60	527	4	2	PPS	5.0M	BXX	350m	0.0	5.0	.45	2.0	60n			0	7		
61	RD803	4	2	PPS	5.0M	BXX	500m	0.0	5.0	.30t	5.0t				0	7	F263	
62	RT801	4	2	PPS	10M	BTX	540m	0.0	5.0	.30	3.3t				0	7	F266	
63	527T	4	2	PPS	20M	BTX	390m	0.0	5.0	.45	5.0	34n			0	7		
64	5527	4	2	PPS	20M	BTX	700m	0.0	5.0	.45	2.4	26n	14m	.40	0	7		
65	RH804	4	2	SPS	500k	BXX	2.1	0.0	15	1.0t	15t				0	7	F264	
66	JANM38510/05703AEA	4	2	SPS	700k	MCX	200m	0.0	5.0	1.5	3.25	1.4u	85u%	.50	5	C	F80	ML142
67	JANM38510/05703AEB	4	2	SPS	700k	MCX	200m	0.0	5.0	1.5	3.25	1.4u	85u%	.50	5	C</		

7. SHIFT REGISTERS

IN ORDER OF(1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	6 TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT		MIN OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	@ OUT (V)		LOGIC/BLOCK	OUTLINE
1	JANM38510/05703CEB	4	2	SPS	700k	MCX	200m	0.0	5.0	1.5	3.25	1.4u	85u	.50	5	C	F80 ML142
2	JANM38510/05703CEC	4	2	SPS	700k	MCX	200m	0.0	5.0	1.5	3.25	1.4u	85u	.50	5	C	F80 ML142
3	JANM38510/05703CFA	4	2	SPS	700k	MCX	200m	0.0	5.0	1.5	3.25	1.4u	85u	.50	5	C	F80 FL138
4	JANM38510/05703CFB	4	2	SPS	700k	MCX	200m	0.0	5.0	1.5	3.25	1.4u	85u	.50	5	C	F80 FL138
5	JANM38510/05703CFC	4	2	SPS	700k	MCX	200m	0.0	5.0	1.5	3.25	1.4u	85u	.50	5	C	F80 FL138
6	SIL4015BE	4	2	SPS	1.0M	MCA	200m	0.0	5.0	0.1%	4.95	700n	360u	4.6	4	8	F80 MO001AG
7	CM4015AE	4	2	SPS	1.0M	MCX	200m	0.0	5.0	0.1%	4.99	1.0u			4	8	F80 ML4g
8	CM4015AD	4	2	SPS	1.5M	MCX	200m	0.0	5.0	0.1%	4.99	750n			5	C	F80 ML4g
9	SIL4015BD	4	2	SPS	2.0M	MCA	200m	0.0	5.0	0.1%	4.95	500n	300u	4.6	5	C	F80 MO001AG
10	SIL4015BF	4	2	SPS	2.0M	MCA	200m	0.0	5.0	0.1%	4.95	500n	300u	4.6	5	C	F80 MO001AG
11	SS4015AE	4	2	SPS	2.5M			0.0	10	20%	9.8	300n	2.8m	1.5	2	8	F298
12	CD4015AE	4	2	SPS	2.5M	MCX	14m	0.0	10	0.5%	9.95	300n	80u	9.5	4	8	F80 MO001AG
13	HBF4015AE	4	2	SPS	2.5M	MCX	14m	0.0	10	0.5%	9.9	300n	80u	9.5	4	8	F80 MO001AG
14	HBF4015AF	4	2	SPS	2.5M	MCX	14m	0.0	10	0.5%	9.9	300n	80u	9.5	4	8	F80 ML127C
15	CD4015AD	4	2	SPS	3.0M	MCX	6.0m	0.0	10	0.5%	9.95	225n	140u	9.5	5	C	F80 MO001AG
16	CD4015AK	4	2	SPS	3.0M	MCX	6.0m	0.0	10	0.5%	9.95	225n	140u	9.5	5	C	F80 MO001AG
17	CM4015AF	4	2	SPS	3.0M	MCX	6.0m	0.0	10	0.5%	9.95	225n	140u	9.5	5	C	F80 ML19a
18	HBC4015AD	4	2	SPS	3.0M	MCX	6.0m	0.0	10	0.5%	9.9	225n	140u	9.5	5	C	F80 ML127C
19	HBC4015AF	4	2	SPS	3.0M	MCX	6.0m	0.0	10	0.5%	9.9	225n	140u	9.5	5	C	F80 ML127c
20	HBC4015AK	4	2	SPS	3.0M	MCX	6.0m	0.0	10	0.5%	9.9	225n	140u	9.5	5	C	F80 MO004AG
21	MC14015AL	4	2	SPS	3.0M	MCX	100u	0.0	10	0.1%	9.99	225n	900u	50	5	C	F111 ML5
22	RD804	4	2	SPS	5.0M	BDX	575m	0.0	5.0	30t	5.0t				0	7	F264
23	SCL4015AD	4	2	SPS	5.0M	MCX	200m	0.0	10	0.5%	9.95	225n	140u	9.5	5	C	F154 ML62a
24	SCL4015AE	4	2	SPS	5.0M	MCX	200m	0.0	10	0.5%	9.95	225n	140u	9.5	4	8	F154 ML89
25	SCL4015AF	4	2	SPS	5.0M	MCX	200m	0.0	10	0.5%	9.95	225n	140u	9.5	5	C	F154 FL23
26	SCL4015AH	4	2	SPS	5.0M	MCX	200m	0.0	10	0.5%	9.95	225n	140u	9.5	5	C	F154 CH2
27	MC14015CL	4	2	SPS	6.0M	MCX	1.0m	0.0	10	0.1%	9.99	300n	500u	50	4	8	F111 ML5
28	MC14015CP	4	2	SPS	6.0M	MCX	1.0m	0.0	10	0.1%	9.99	300n	500u	50	4	8	F111 ML81
29	RT802	4	2	SPS	10M	BTX	600m	0.0	5.0	30	3.3t				0	7	F267
30	T102	4	3	PPS	20M	BTX	1.2	4.7	5.3	80	1.8	25nt	9.6m	45	0	7	PL2
31	I102	4	3	SSS	5.0M	BDX	900m	4.7	5.3	1.1	1.9	55nt	14m	50	0	7	F218 PL2
32	I103	4	3	SSS	5.0M	BDX	900m	4.7	5.3	1.1	1.9	55nt	14m	50	0	7	F219 PL2
33	569T	4	4	PPS			1.1 t	0.0	5.0	4.5	2.0	25nt	16m		0	6	F277 PL8
34	MC14580AL	4	4	SSS		MCX	400u	0.0	10	0.1%	9.99	900u	50		5	C	F276 ML150
35	MC14580CL	4	4	SSS		MCX	4.0m	0.0	10	0.1%	9.99	500u	50		4	8	F276 ML150
36	AM2841DC	4	64	PPS		MPS		12	5.0	80	4.0	200nt	1.6m	40	0	7	F294 ML62c
37	AM2841DM	4	64	PPS		MPS		12	5.0	80	4.0	200nt	1.6m	40	5	C	F294 ML62c
38	AM3341DC	4	64	PPS		MPS		12	5.0	80	4.0	250nt	1.6m	40	0	7	F294 ML62c
39	N7496F	5	1	PPD	10M	BTX	395m	0.0	5.0	80	2.0	40n	16m	40			F40 ML61d
40	SN54L96J	5	1	PPS	5.0M	BTX	120mt	0.0	5.0	80	2.0	110n	8.0m	40	5	C	F40 ML61a
41	SN74L96J	5	1	PPS	5.0M	BTX	120mt	0.0	5.0	80	2.0	110n	8.0m	40	0	7	F40 ML61a
42	SN74L96N	5	1	PPS	5.0M	BTX	120mt	0.0	5.0	80	2.0	110n	8.0m	40	0	7	F40 ML61a
43	JANM38510/00902AEA	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 ML142
44	JANM38510/00902AEB	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 ML142
45	JANM38510/00902AEC	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 ML142
46	JANM38510/00902AFA	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 FL31
47	JANM38510/00902AFB	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 FL31
48	JANM38510/00902AFC	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 FL31
49	JANM38510/00902BEA	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 ML142
50	JANM38510/00902BEB	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 ML142
51	JANM38510/00902BEC	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 ML142
52	JANM38510/00902BFA	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 ML142
53	JANM38510/00902BFB	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 FL31
54	JANM38510/00902BFC	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 FL31
55	JANM38510/00902CEA	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 ML142
56	JANM38510/00902CEB	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 ML142
57	JANM38510/00902CEC	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 ML142
58	JANM38510/00902CFA	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 ML142
59	JANM38510/00902CFB	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 FL31
60	JANM38510/00902CFC	5	1	PPS	7.0M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 FL31
61	FLJ261	5	1	PPS	10M	BTX	400m	0.0	5.0	80	2.0	77n	16m	40	5	C	F40 FL31
62	FLJ265	5	1	PPS	10M	BTX	415m	0.0	5.0	80	2.0	40n	16m	40	0	7	
63	FJJ241	5	1	PPS	10M	BTX	240mt	0.0	5.0	80	2.0	40n	16m	40	2	8	
64	M53296P	5	1	PPS	10M	BTX	29m	0.0	5.0	80	2.0	40n	16m	40	0	7	F40 ML2h
65	MC5496L	5	1	PPS	10M	BTX	240mt	0.0	5.0	40%	2.4	40n	16m	40	5	C	F40 ML5a
66	MC7496P	5	1	PPS	10M	BTX	240mt	0.0	5.0	40%	2.4	40n	16m	40	5	C	F40 ML127b
67	MC8396L	5	1	PPS	10M	BTX	240mt	0.0	5.0	40%	2.4	40n	16m	40	0	7	F40 ML81
68	MC8396P	5	1	PPS	10M	BTX	240mt	0.0	5.0	40%	2.4	40n	16m	40	0	7	F4

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS/REG (2) No. REGISTERS
(3) OP. CODE (4) MAX W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	6	TYPE No.	ORGANIZATION		3	4 MAX CASE FREQ. (Hz)	5 MAX STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
			1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)			LOGIC/BLOCK	OUTLINE
1		SN7496N	5	1	PPS	10M	BTX	240m	0.0	5.0	.80	2.0	55n	16m	.40	0	7	F40	ML48
2		SW7496J	5	1	PPS	10M	BTX	395m	0.0	5.0	.80	2.0	40n	1.6m	.40	0	7	F40	ML48
3		SW7496N	5	1	PPS	10M	BTX	395m	0.0	5.0	.80	2.0	40n	1.6m	.40	0	7	F40	ML72
4#		TL7496N	5	1	PPS	10M*	BTX	414m	0.0	5.0	.80	2.0	55n	16m	.40	0	7	F243a	ML48b
5		US5496A	5	1	PPS	10M*	BTX	240m	0.0	5.0	.80	2.0	55n	1.6m	.40	5	C	F40	ML85a
6		US7496A	5	1	PPS	10M*	BTX	240m	0.0	5.0	.80	2.0	55n	1.6m	.40	0	7	F40	ML85a
7#		GFB7496D	5	1	SSS	10M	BTX	240m	0.0	5.0	.80	2.0	55n	18m	0.0	0	7	F40	ML175
8#		N8200F	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	0	7	F302	ML133
9#		N8200N	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	0	7	F302	ML135
10#		N8200Q	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	0	7	F302	FL3b
11#		N8201F	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	0	7	F302a	ML133
12#		N8201N	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	0	7	F302a	ML135
13#		N8201Q	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	0	7	F302a	FL3b
14#		S8200F	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	5	C	F302	ML133
15#		S8200N	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	5	C	F302	ML135
16#		S8200Q	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	5	C	F302	FL3b
17#		S8201F	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	5	C	F302a	ML133
18#		S8201N	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	5	C	F302a	ML135
19#		S8201Q	5	2	PPS	15M*	BTX	580m	0.0	5.0	.40%	2.6	45n	9.6m	.40	5	C	F302a	FL3b
20#		HD2546	5	2	PPS	35M	BTX	414m	0.0	5.0	.80	2.0	40n	16m	.40	2	7	F40	ML108
21#		HD2546P	5	2	PPS	35M	BTX	414m	0.0	5.0	.80	2.0	40n	16m	.40	2	7	F40	ML94a
22		CM4006AE	5#	4#	PPS	1.2M	MCX	200m	0.0	5.0	.01%	4.99	500n			4	8	F126	ML19a
23		CM4006AD	5#	4#	PPS	1.5M	MCX	200m	0.0	5.0	.01%	4.99	400n			5	C	F126	ML19a
24		CM4006AF	5#	4#	PPS	2.5M	MCX	600u	0.0	10	.05%	9.95	200n	140u	9.5	5	C	F126	ML19a
25		MC14006CL	5#	4#	PPS	4.0M	MCX	100u	0.0	10	.01%	9.99	250n	500u	.50	4	8	F236	ML66
26		MC14006CP	5#	4#	PPS	4.0M	MCX	100u	0.0	10	.01%	9.99	250n	500u	.50	4	8	F236	ML124
27		MC14006AL	5#	4#	PPS	7.0M	MCX	10u	0.0	10	.01%	9.99	145n	900u	.50	5	C	F236	ML66
28		JANM38510/05701ACA	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	ML143
29		JANM38510/05701ACB	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	ML143
30		JANM38510/05701ACC	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	ML143
31		JANM38510/05701ADA	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	ML143
32		JANM38510/05701ADB	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	FL22
33		JANM38510/05701ADC	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	FL22
34		JANM38510/05701BCA	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	ML143
35		JANM38510/05701BCB	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	ML143
36		JANM38510/05701BCC	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	ML143
37		JANM38510/05701BDA	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	ML143
38		JANM38510/05701BDB	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	FL22
39		JANM38510/05701BDC	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	FL22
40		JANM38510/05701CCA	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	FL22
41		JANM38510/05701CCB	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	ML143
42		JANM38510/05701CCC	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	ML143
43		JANM38510/05701CDA	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	ML143
44		JANM38510/05701CDB	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	FL22
45		JANM38510/05701CDC	5#	4#	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	FL22
46		CD4006AE	5#	4#	SSS	2.0M	MCX	200m	0.0	5.0	1.25	3.25	800n	85u	.50	5	C	F251	FL22
47#		HB4006AE	5#	4	SSS	2.0M	MCX	1.4m	0.0	10	.05%	9.95	250n	80u	9.5	4	8	F126	MO001AB
48#		HB4006AF	5#	4	SSS	2.0M	MCX	1.4m	0.0	10	.05%	9.9	250n	80u	9.5	4	8	F126	MO001AB
49#		MM5606AN	5#	4#	SSS	2.0M	MCX	500m	0.0	10	.05%	9.9	200n	250u	.50	3	8	F312	ML180
50		CD4006AD	5#	4#	SSS	2.5M	MCX	600u	0.0	10	.05%	9.95	200n	140u	9.5	5	C	F126	MO001AD
51		CD4006AK	5#	4#	SSS	2.5M	MCX	600u	0.0	10	.05%	9.95	200n	140u	9.5	5	C	F126	MO004AF
52#		HBC4006AD	5#	4#	SSS	2.5M	MCX	600u	0.0	10	.05%	9.9	200n	140u	9.5	5	C	F126	MO001AD
53#		HBC4006AF	5#	4#	SSS	2.5M	MCX	600u	0.0	10	.05%	9.9	200n	140u	9.5	5	C	F126	MO001AD
54#		HBC4006AK	5#	4#	SSS	2.5M	MCX	600u	0.0	10	.05%	9.9	200n	140u	9.5	5	C	F126	MO004AF
55#		MM4606AD	5#	4#	SSS	2.5M	MCX	500m	0.0	10	.05%	9.9	200n	250u	.50	5	C	F312	ML179
56#		MM4606AF	5#	4#	SSS	2.5M	MCX	500m	0.0	10	.05%	9.9	200n	250u	.50	5	C	F312	FL36
57		SCL4006AD	5	4	SSS	5.0M	MCX	200m	0.0	10	.05%	9.95	200n	140u	9.5	5	C	F126	ML104
58		SCL4006AE	5	4	SSS	5.0M	MCX	200m	0.0	10	.05%	9.95	200n	140u	9.5	4	8	F126	ML93a
59		SCL4006AF	5	4	SSS	5.0M	MCX	200m	0.0	10	.05%	9.95	200n	140u	9.5	5	C	F126	FL11a
60		SCL4006AH	5	4	SSS	5.0M	MCX	200m	0.0	10	.05%	9.95	200n	140u	9.5	5	C	F126	CHZ
61		AM25507DC	6	1	PPS		BDT	720m	0.0	5.0	.80	2.0	17n	20m	.50	0	7	F284	ML89a
62		AM25507DM	6	1	PPS		BDT	720m	0.0	5.0	.80	2.0	17n	20m	.50	5	C	F284	ML89a
63		AM25507FM	6																

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS (2) No. REGISTERS
(3) OP. CODE (4) MAX W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	TYPE No.	ORGANIZATION		OPER. CODE	WORST CASE FREQ. (Hz)	STRUC TURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		BITS PER REGISTER	No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)			LOGIC/ BLOCK	OUTLINE
1	AM2503DM	8	1	PPS	15M1	BTX	400m	0.0	5.0	.80	2.0	38n	9.6m	.40	5	C	F257	ML62
2	AM2503FM	8	1	PPS	15M1	BTX	400m	0.0	5.0	.80	2.0	38n	9.6m	.40	5	C	F257	FL33
3	AM2503PC	8	1	PPS	15M1	BTX	450m	0.0	5.0	.80	2.0	38n	9.6m	.40	0	7	F257	ML89a
4#	M53365P	8	1	PPS	20M0	BTX	210m1	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F107	ML5a
5	N74165B	8	1	PPS	20M0	BTX	210m1	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F107	ML85
6	N74165R	8	1	PPS	20M0	BTX	210m1	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F107	ML21b
7	S54165B	8	1	PPS	20M0	BTX	210m1	0.0	5.0	.80	2.0	40n	16m	.40	5	C	F107	ML85
8	S54165E	8	1	PPS	20M0	BTX	210m1	0.0	5.0	.80	2.0	40n	16m	.40	5	C	F107	ML61c
9	S54165R	8	1	PPS	20M0	BTX	210m1	0.0	5.0	.80	2.0	40n	16m	.40	5	C	F107	ML21b
10#	FLJ311	8	1	PPS	25M	BTC	610m	0.0	5.0	.80	2.0	28n	16m	.40	0	7		
11#	FLJ315	8	1	PPS	25M	BTC	610m	0.0	5.0	.80	2.0	28n	16m	.40	2	8		
12#	FLJ321	8	1	PPS	25M	BTC	610m	0.0	5.0	.80	2.0	28n	16m	.40	0	7		
13#	FLJ325	8	1	PPS	25M	BTC	610m	0.0	5.0	.80	2.0	28n	16m	.40	2	8		
14#	FLJ461	8	1	PPS	25M	BTC	610m	0.0	5.0	.80	2.0	28n	16m	.40	0	7		
15#	FLJ465	8	1	PPS	25M	BTC	610m	0.0	5.0	.80	2.0	28n	16m	.40	2	8		
16#	M53364P	8	1	PPS	25M0	BTX	21m%1	0.0	5.0	.80	2.0	42n1	8.0m	.40	0	7	F179	TO116
17#	M53398P	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	0	7	F89	
18#	M53399P	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	0	7	F90	
19	N74164A	8	1	PPS	25M0	BTX	21m%1	0.0	5.0	.80	2.0	42n0	8.0m	.40	0	7	F179	ML86
20#	N74164F	8	1	PPS	25M	BTX	270m	0.0	5.0	.80	2.0	42n	8.0m	.40	0	7	F179	ML93b
21	N74164Q	8	1	PPS	25M0	BTX	21m%1	0.0	5.0	.80	2.0	42n0	8.0m	.40	0	7	F179	FL19
22	N74166B	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	35n0	16m	.40	0	7	F88	ML85
23	N74166R	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	35n0	16m	.40	0	7	F88	ML21b
24#	N74198F	8	1	PPS	25M0	BTX	580m	0.0	5.0	.80	2.0	35n0	16m	.40	0	7	F89	ML133
25	N74198N	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	35n0	16m	.40	0	7	F89	ML88
26#	N74199F	8	1	PPS	25M0	BTX	580m	0.0	5.0	.80	2.0	35n0	16m	.40	0	7	F90	ML133
27	N74199N	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	35n0	16m	.40	0	7	F90	ML88
28	N74199P	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	35n0	16m	.40	0	7	F90	FL3b
29	N74199Y	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	35n0	16m	.40	0	7	F90	FL18
30	S54164A	8	1	PPS	25M0	BTX	21m%1	0.0	5.0	.80	2.0	42n0	8.0m	.40	5	C	F179	ML86
31	S54164F	8	1	PPS	25M0	BTX	21m%1	0.0	5.0	.80	2.0	42n0	8.0m	.40	5	C	F179	ML66b
32	S54164Q	8	1	PPS	25M0	BTX	21m%1	0.0	5.0	.80	2.0	42n0	8.0m	.40	5	C	F179	FL19
33	S54166B	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	35n0	16m	.40	5	C	F88	ML85
34	S54166E	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	35n0	16m	.40	5	C	F88	ML61c
35#	S54166F	8	1	PPS	25M	BTX	520m	0.0	5.0	.80	2.0	35n	16m	.40	5	C	F88	ML61d
36	S54166R	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	35n0	16m	.40	5	C	F88	ML21b
37#	S54166W	8	1	PPS	25M	BTX	520m	0.0	5.0	.80	2.0	35n	16m	.40	5	C	F88	FL25
38#	S54198F	8	1	PPS	25M0	BTX	520m	0.0	5.0	.80	2.0	35n0	16m	.40	5	C	F89	ML133
39	S54198N	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	35n0	16m	.40	5	C	F89	ML88
40	S54198P	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	35n0	16m	.40	5	C	F89	FL3b
41#	S54198Q	8	1	PPS	25M0	BTX	520m	0.0	5.0	.80	2.0	35n0	16m	.40	5	C	F89	FL18
42	S54198Y	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	35n0	16m	.40	5	C	F89	ML133
43#	S54199F	8	1	PPS	25M0	BTX	520m	0.0	5.0	.80	2.0	35n0	16m	.40	5	C	F90	ML88
44	S54199N	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	35n0	16m	.40	5	C	F90	FL3b
45	S54199P	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	35n0	16m	.40	5	C	F90	FL18
46#	S54199Q	8	1	PPS	25M0	BTX	520m	0.0	5.0	.80	2.0	35n0	16m	.40	5	C	F90	FL3b
47	S54199Y	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	35n0	16m	.40	5	C	F90	ML133
48	SN54198J	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	5	C	F89	MO015AA
49	SN54198N	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	5	C	F89	ML72
50	SN54198W	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	5	C	F89	MO019AA
51	SN54199J	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	5	C	F90	MO015AA
52	SN54199N	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	5	C	F90	ML72
53	SN54199W	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	5	C	F90	MO019AA
54	SN74198J	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	0	7	F89	MO015AA
55	SN74198N	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	0	7	F89	ML72
56	SN74198W	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	0	7	F89	MO019AA
57	SN74199J	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	0	7	F90	MO015AA
58	SN74199N	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	0	7	F90	ML72
59	SN74199W	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	0	7	F90	MO019AA
60	SW74198N	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	0	7	F89	ML72
61	SW74199N	8	1	PPS	25M0	BTX	360m1	0.0	5.0	.80	2.0	30n0	16m	.40	0	7	F90	ML72
62#	N74165F	8	1	PPS	26M0	BTX	315m	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F107	ML61d
63#	S54165F	8	1	PPS	26M0	BTX	315m	0.0	5.0	.80	2.0	40n	16m	.40	5	C	F107	ML61d
64#	S54165W	8	1	PPS	26M0	BTX	315m	0.0	5.0	.80	2.0	40n	16m	.40	5	C	F107	FL25
65#	TL74165N	8	1	PPS	26M1	BTX	330m	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F107	ML48b
66#	TL74166N	8	1	PPS	35M1	BTX	609m	0.0	5.0	.80	2.0	35n	16m	.40	0	7	F88	ML48b
67#	TL74198N	8	1	PPS	35M1													

7. SHIFT REGISTERS

IN ORDER OF(1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	6	TYPE No.	ORGANIZATION 3			4 MAX WORST CASE FREQ. (Hz)	5 STRUC TURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT		MIN. CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
			1. BITS PER REGISTER	2. No. REGS	OPER. CODE				NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	@ OUT (V)			LOGIC/ BLOCK	OUTLINE
1	JANM38510/05704AEB	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	ML142	
2	JANM38510/05704AEC	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	ML142	
3	JANM38510/05704AFA	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	FL138	
4	JANM38510/05704AFB	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	FL138	
5	JANM38510/05704AFC	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	FL138	
6	JANM38510/05704BEA	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	ML142	
7	JANM38510/05704BEB	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	ML142	
8	JANM38510/05704BEC	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	ML142	
9	JANM38510/05704BFA	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	ML142	
10	JANM38510/05704BFB	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	FL138	
11	JANM38510/05704BFC	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	FL138	
12	JANM38510/05704CEA	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	FL138	
13	JANM38510/05704CEB	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	ML142	
14	JANM38510/05704CEC	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	ML142	
15	JANM38510/05704CFA	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	ML142	
16	JANM38510/05704CFB	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	FL138	
17	JANM38510/05704CFC	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	FL138	
18	CM4014AE	8	1	PSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.4u	85u	.50	5	C	F149	FL138	
19	MC14021CL	8	1	PSS	1.0M	MCX	200m	0.0	5.0	0.1%	4.99	1.0u	80u	9.5	4	8	F79	ML4g	
20	MC14021CP	8	1	PSS	1.0M	MCX	1.2m	0.0	5.0	0.1%	4.99	1.0u	80u	9.5	4	8	F175	ML127b	
21	MC14021AL	8	1	PSS	1.0M	MCX	1.2m	0.0	5.0	0.1%	4.99	1.0u	80u	9.5	4	8	F175	ML81	
22	MM409	8	1	PSS	1.5M	MPX	300m	16	0.0	0.0%	4.99	750m	100u	50	5	5	C	F175	
23	MM509	8	1	PSS	2.0M	MPX	300m	16	0.0	-2.5	-7.0	5.0m	-16	5	5	C	F64	ML127b	
24	CD4014AE	8	1	PSS	2.5M	MCX	14m	0.0	10	0.5%	9.95	300n	80u	9.5	4	8	F79	MO001AG	
25	CD4021AE	8	1	PSS	2.5M	MCX	1.4m	0.0	10	0.5%	9.95	300n	80u	9.5	4	8	F79	MO001AG	
26	HB4014AE	8	1	PSS	2.5M	MCX	14m	0.0	10	0.5%	9.9	300n	80u	9.5	4	8	F79	MO001AG	
27	HB4014AF	8	1	PSS	2.5M	MCX	14m	0.0	10	0.5%	9.9	300n	80u	9.5	4	8	F79	MO001AG	
28	HB4021AE	8	1	PSS	2.5M	MCX	14m	0.0	10	0.5%	9.9	300n	80u	9.5	4	8	F79	ML127C	
29	HB4021AF	8	1	PSS	2.5M	MCX	14m	0.0	10	0.5%	9.9	300n	80u	9.5	4	8	F149	MO001AG	
30	MM5614AN	8	1	PSS	2.5M	MCX	500m	0.0	10	0.5%	9.9	300n	100u	50	3	8	F149	ML127C	
31	MM5621AN	8	1	PSS	2.5M	MCX	500m	0.0	10	0.5%	9.9	300n	100u	50	3	8	F313	ML178	
32	CD4014AD	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5%	9.95	225n	140u	9.5	5	C	F79	MO001AG	
33	CD4014AK	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5%	9.95	225n	140u	9.5	5	C	F79	MO004AG	
34	CD4021AD	8	1	PSS	3.0M	MCX	600u	0.0	10	0.5%	9.95	225n	140u	9.5	5	C	F149	MO001AG	
35	CD4021AK	8	1	PSS	3.0M	MCX	600u	0.0	10	0.5%	9.95	225n	140u	9.5	5	C	F149	MO001AG	
36	CD4034AD	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5%	9.95	480n	88u	9.5	5	C	F177	MO015AG	
37	CD4034AK	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5%	9.95	480n	88u	9.5	5	C	F177	MO015AG	
38	CM4014AF	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5%	9.95	225n	140u	9.5	5	C	F79	ML19a	
39	CM4021AF	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5%	9.95	225n	140u	9.5	5	C	F149	ML19a	
40	HBC4014AD	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5%	9.9	225n	140u	9.5	5	C	F79	ML127C	
41	HBC4014AF	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5%	9.9	225n	140u	9.5	5	C	F79	ML127C	
42	HBC4014AK	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5%	9.9	225n	140u	9.5	5	C	F79	MO004AG	
43	HBC4021AD	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5%	9.9	225n	140u	9.5	5	C	F149	ML127C	
44	HBC4021AF	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5%	9.9	225n	140u	9.5	5	C	F149	ML127C	
45	HBC4021AK	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5%	9.9	225n	140u	9.5	5	C	F149	MO004AG	
46	HBC4034AD	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5%	9.9	480n	88u	9.5	5	C	F177	MO015AG	
47	HBC4034AK	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5%	9.9	480n	88u	9.5	5	C	F177	MO015AG	
48	MM4614AD	8	1	PSS	3.0M	MCX	500m	0.0	10	0.5%	9.9	225n	250u	50	5	C	F313	ML177	
49	MM4614AF	8	1	PSS	3.0M	MCX	500m	0.0	10	0.5%	9.9	225n	250u	50	5	C	F313	FL37	
50	MM4621AD	8	1	PSS	3.0M	MCX	500m	0.0	10	0.5%	9.9	225n	250u	50	5	C	F314	ML177	
51	MM4621AF	8	1	PSS	3.0M	MCX	500m	0.0	10	0.5%	9.9	225n	250u	50	5	C	F314	FL37	
52	SCL4034AD	8	1	PSS	3.0M	MCX	6.0m	0.0	10	0.5	9.95	480n	88u	9.5	5	C	F177	ML105	
53	SIL4014BD	8	1	PSS	5.0M	MCA	6.0m	0.0	10	0.5%	9.95	200n	650u	9.5	5	C	F79	MO001AG	
54	SIL4014BE	8	1	PSS	5.0M	MCA	14m	0.0	10	0.5%	9.95	300n	750u	9.5	4	8	F79	MO001AG	
55	SIL4014BF	8	1	PSS	5.0M	MCA	6.0m	0.0	10	0.5%	9.95	200n	650u	9.5	5	C	F79	MO001AG	
56	SIL4021BD	8	1	PSS	5.0M	MCA	6.0m	0.0	10	0.5%	9.95	200n	650u	9.5	5	C	F149	MO001AG	
57	SIL4021BE	8	1	PSS	5.0M	MCA	14m	0.0	10	0.5%	9.95	300n	750u	9.5	4	8	F149	MO001AG	
58	SIL4021BF	8	1	PSS	5.0M	MCA	6.0m	0.0	10	0.5%	9.95	200n	650u	9.5	5	C	F149	MO001AG	
59	MM54C165D	8	1	PSS	5.0M	MCX	500m	0.0	10	80	3.0	200n	360u	40	5	C	F311	ML177	
60	MM74C165N	8	1	PSS	5.0M	MCX	500m	0.0	10	80	3.2	200n	360u	40	0	7	F311	ML178	
61	SCL4014AD	8	1	PSS	5.0M	MCX	200m	0.0	10	0.5%	9.95	225n	140u	9.5	5	C	F125	ML62a	
62	SCL4014AE	8	1	PSS	5.0M	MCX	200m	0.0	10	0.5%	9.95	225n	140u	9.5	4	8	F125	ML89	
63	SCL4014AF	8	1	PSS	5.0M	MCX	200m	0.0	10	0.5%	9.95	225n	140u	9.5	5	C	F125	FL23	
64	SCL4014AH	8	1	PSS	5.0M	MCX	200m	0.0	10	0.5%	9.95	225n	140u	9.5	5	C	F125	CH	
65	SCL4021AD																		

7. SHIFT REGISTERS

IN ORDER OF(1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	6	TYPE No.	ORGANIZATION		OPER. CODE	MAX 5		MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
			1	2		WORST CASE FREQ. (Hz)	STRUC TURE CODE		NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		@ OUT (V)	LOGIC/ BLOCK			OUTLINE	
																			BITS PER REGISTER
1	JANM38510/00904CEA	8	1	PSS	14M	BTX	372m	0.0	5.0	.80	2.0	60n	16m	.40		5	C	F180	ML142
2	JANM38510/00904CEB	8	1	PSS	14M	BTX	372m	0.0	5.0	.80	2.0	60n	16m	.40		5	C	F180	ML142
3	JANM38510/00904CEC	8	1	PSS	14M	BTX	372m	0.0	5.0	.80	2.0	60n	16m	.40		5	C	F180	ML142
4	JANM38510/00904CFA	8	1	PSS	14M	BTX	372m	0.0	5.0	.80	2.0	60n	16m	.40		5	C	F180	FL31
5	JANM38510/00904CFB	8	1	PSS	14M	BTX	372m	0.0	5.0	.80	2.0	60n	16m	.40		5	C	F180	FL31
6	JANM38510/00904CFC	8	1	PSS	14M	BTX	372m	0.0	5.0	.80	2.0	60n	16m	.40		5	C	F180	FL31
7	DM7590D	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.0	35n	16m	.40		5	C	F53	ML63
8	DM8590N	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.0	35n	16m	.40		5	C	F53	ML69
9	MC54165F	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.0	40n	16m	.40		5	C	F261	FL34
10	MC54165L	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.4	40n	16m	.40		5	C	F261	ML127b
11	MC74165F	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.4	40n	16m	.40		0	7	F261	FL34
12	MC74165L	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.4	40n	16m	.40		0	7	F261	ML127b
13	MC74165P	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.4	40n	16m	.40		0	7	F261	ML81
14#	MIC54165J	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.0	40n	16m	.40		5	C	F107	TO116
15#	MIC64165J	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.0	40n	16m	.40		4	8	F107	TO116
16#	MIC74165J	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.0	40n	16m	.40		0	7	F107	TO116
17#	MIC74165N	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.0	40n	16m	.40		0	7	F107	ML
18	SN54165J	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.0	40n	16m	.40		5	C	F107	ML61a
19	SN54165N	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.0	40n	16m	.40		5	C	F107	ML48
20	SN54165W	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.0	40n	16m	.40		5	C	F107	MO004AG
21	SN74165J	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.0	40n	16m	.40		0	7	F107	ML61a
22	SN74165N	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.0	40n	16m	.40		0	7	F107	ML48
23	SN74165W	8	1	PSS	20M	BTX	315m	0.0	5.0	.80	2.0	40n	16m	.40		0	7	F107	MO004AG
24#	FLJ451	8	1	PSS	25M	BTX	520m	0.0	5.0	.80	2.0	28n	16m	.40		0	7		
25#	FLJ455	8	1	PSS	25M	BTX	520m	0.0	5.0	.80	2.0	28n	16m	.40		2	8		
26#	M53366P	8	1	PSS	25M	BTX	360m	0.0	5.0	.80	2.0	30n	16m	.40		0	7	F88	ML5a
27#	MIC54166J	8	1	PSS	25M	BTX	360m	0.0	5.0	.80	2.0	30n	16m	.40		5	C	F88	TO116
28#	MIC64166J	8	1	PSS	25M	BTX	360m	0.0	5.0	.80	2.0	30n	16m	.40		4	8	F88	TO116
29#	MIC74166J	8	1	PSS	25M	BTX	360m	0.0	5.0	.80	2.0	30n	16m	.40		0	7	F88	TO116
30#	MIC74166N	8	1	PSS	25M	BTX	360m	0.0	5.0	.80	2.0	30n	16m	.40		0	7	F88	ML
31#	N74166F	8	1	PSS	25M	BTX	580m	0.0	5.0	.80	2.0	35n	16m	.40		0	7	F88	ML61d
32	SN54166J	8	1	PSS	25M	BTX	360m	0.0	5.0	.80	2.0	30n	16m	.40		5	C	F88	ML61
33	SN54166N	8	1	PSS	25M	BTX	360m	0.0	5.0	.80	2.0	30n	16m	.40		5	C	F88	ML48
34	SN54166W	8	1	PSS	25M	BTX	360m	0.0	5.0	.80	2.0	30n	16m	.40		5	C	F88	MO004AG
35	SN74166J	8	1	PSS	25M	BTX	360m	0.0	5.0	.80	2.0	30n	16m	.40		0	7	F88	ML61
36	SN74166N	8	1	PSS	25M	BTX	360m	0.0	5.0	.80	2.0	30n	16m	.40		0	7	F88	ML48
37	SN74166W	8	1	PSS	25M	BTX	360m	0.0	5.0	.80	2.0	30n	16m	.40		0	7	F88	MO004AG
38	SW74166J	8	1	PSS	25M	BTX	360m	0.0	5.0	.80	2.0	30n	16m	.40		0	7	F88	ML5
39	SW74166N	8	1	PSS	25M	BTX	360m	0.0	5.0	.80	2.0	30n	16m	.40		0	7	F88	ML5
40	MM408	8	1	SPS	2.0M	MPX	300m	16	0.0	-2.5	-7.0		5.0m	-16		5	C	F63	ML
41	MM508	8	1	SPS	2.0M	MPX	300m	16	0.0	-2.5	-7.0		5.0m	-16		0	7	F63	ML
42#	JANM38510/02805AAA	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL21a
43#	JANM38510/02805AAB	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL21a
44#	JANM38510/02805AAC	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL21a
45#	JANM38510/02805ABA	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL21a
46#	JANM38510/02805ABB	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL21
47#	JANM38510/02805ABC	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL21
48#	JANM38510/02805ACA	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL21
49#	JANM38510/02805ACB	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	ML142
50#	JANM38510/02805ACC	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	ML142
51#	JANM38510/02805ADA	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	ML142
52#	JANM38510/02805ADB	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL22
53#	JANM38510/02805ADC	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL22
54#	JANM38510/02805BAA	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL21a
55#	JANM38510/02805BAB	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL21a
56#	JANM38510/02805BAC	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL21a
57#	JANM38510/02805BBA	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL21a
58#	JANM38510/02805BBB	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL21
59#	JANM38510/02805BBC	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL21
60#	JANM38510/02805BCA	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	ML142
61#	JANM38510/02805BCB	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	ML142
62#	JANM38510/02805BCC	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	ML142
63#	JANM38510/02805BDA	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	ML142
64#	JANM38510/02805BDB	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL22
65#	JANM38510/02805BDC	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL22
66#	JANM38510/02805CAA	8	1	SPS	3.0M	BTX	52m	0.0	5.0	.70	2.0	140n	2.0m	.30		5	C	F179	FL22

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS / REG (2) No. REGISTERS
(3) OP. CODE (4) MAX. W/C FREQ (5) STRUCT (6) TYPE No

LINE No.	TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT (A)	MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)					LOGIC/ BLOCK	OUTLINE
1▼	JANM38510/02805CCB	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5 C	F179	ML142
2▼	JANM38510/02805CCC	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5 C	F179	ML142
3▼	JANM38510/02805CDA	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5 C	F179	FL22
4▼	JANM38510/02805CDB	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5 C	F179	FL22
5▼	JANM38510/02805CDC	8	1	SPS	3.0MΔ*	BTX	52m□	0.0	5.0	.70	2.0	140n	2.0m	.30	5 C	F179	FL22
6▼	MM54C164D	8	1	SPS	5.5M	MCX	500m□	0.0	10	80♦	3.0	320n†	360u	.40	5 C	F310	ML179
7▼	MM74C164N	8	1	SPS	5.5M	MCX	500m□	0.0	10	80♦	3.2	320n†	360u	.40	0 7	F310	ML180
8	RT808	8	1	SPS	10M	BTX	860m	0.0	5.0	.30	3.3†				0 7	F269	
9	JANM38510/02802AAA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21a
10	JANM38510/02802AAB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21a
11	JANM38510/02802AAC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21a
12	JANM38510/02802ABA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21a
13	JANM38510/02802ABB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21
14	JANM38510/02802ABC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21
15	JANM38510/02802ACA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21
16	JANM38510/02802ACB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	ML137
17	JANM38510/02802ACC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	ML137
18	JANM38510/02802ADA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	ML137
19	JANM38510/02802ADB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL22
20	JANM38510/02802ADC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL22
21	JANM38510/02802BAA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL22
22	JANM38510/02802BAB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21a
23	JANM38510/02802BAC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21a
24	JANM38510/02802BBA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21a
25	JANM38510/02802BBB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21
26	JANM38510/02802BBC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21
27	JANM38510/02802BCA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21
28	JANM38510/02802BCB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	ML137
29	JANM38510/02802BCC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	ML137
30	JANM38510/02802BDA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	ML137
31	JANM38510/02802BDB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL22
32	JANM38510/02802BDC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL22
33	JANM38510/02802CAA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL22
34	JANM38510/02802CAB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21a
35	JANM38510/02802CAC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21a
36	JANM38510/02802CBA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21a
37	JANM38510/02802CBB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21
38	JANM38510/02802CBC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21
39	JANM38510/02802CCA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL21
40	JANM38510/02802CCB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	ML137
41	JANM38510/02802CCC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	ML137
42	JANM38510/02802CDA	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL22
43	JANM38510/02802CDB	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL22
44	JANM38510/02802CDC	8	1	SPS	12M*	BTX	120m□	0.0	5.0	.80	2.0	110n	4.0m	.40	5 C	F179	FL22
45	JANM38510/02802STD	8	1	SPS	12M*	BTX	148m	0.0	5.0	.80	2.0	84nΔ	4.0m	.40	5 C	F179	FL35
46	SN54L164J	8	1	SPS	12M□	BTX	88m†	0.0	5.0	.80	2.0	84n□	4.0m	.40	5 C	F179	ML66b
47	SN54L164N	8	1	SPS	12M□	BTX	88m†	0.0	5.0	.80	2.0	84n□	4.0m	.40	5 C	F179	ML71
48	SN54L164T	8	1	SPS	12M□	BTX	88m†	0.0	5.0	.80	2.0	84n□	4.0m	.40	5 C	F179	TO84
49	SN74L164J	8	1	SPS	12M□	BTX	88m†	0.0	5.0	.80	2.0	84n□	4.0m	.40	0 7	F179	ML66b
50	SN74L164N	8	1	SPS	12M□	BTX	88m†	0.0	5.0	.80	2.0	84n□	4.0m	.40	0 7	F179	ML71
51	SN74L164T	8	1	SPS	12M□	BTX	88m†	0.0	5.0	.80	2.0	84n□	4.0m	.40	0 7	F179	TO84
52	MC54164AF	8	1	SPS	14M*	BTX	185m†	0.0	5.0	.40%	2.4	50n	8.0m	.40	5 C	F179	TO86
53	MC54164AL	8	1	SPS	14M*	BTX	185m†	0.0	5.0	.40%	2.4	50n	8.0m	.40	5 C	F179	ML66
54	MC74164AF	8	1	SPS	14M*	BTX	185m†	0.0	5.0	.40%	2.4	50n	8.0m	.40	0 7	F179	TO86
55	MC74164AL	8	1	SPS	14M*	BTX	185m†	0.0	5.0	.40%	2.4	50n	8.0m	.40	0 7	F179	ML66
56	MC74164AP	8	1	SPS	14M*	BTX	185m†	0.0	5.0	.40%	2.4	50n	8.0m	.40	0 7	F179	ML124
57	JANM38510/00903AAA	8	1	SPS	18M	BTX	322m□	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21a
58	JANM38510/00903AAB	8	1	SPS	18M	BTX	322m□	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21a
59	JANM38510/00903AAC	8	1	SPS	18M	BTX	322m□	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21a
60	JANM38510/00903ABA	8	1	SPS	18M	BTX	322m□	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21
61	JANM38510/00903ABB	8	1	SPS	18M	BTX	322m□	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21
62	JANM38510/00903ABC	8	1	SPS	18M	BTX	322m□	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21

7. SHIFT REGISTERS

IN ORDER OF (1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	TYPE No.	ORGANIZATION		3	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)		LOGIC/BLOCK	OUTLINE
1	JANM38510/00903ACA	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	ML143
2	JANM38510/00903ACB	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	ML143
3	JANM38510/00903ACC	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	ML143
4	JANM38510/00903ADA	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL22
5	JANM38510/00903ADB	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL22
6	JANM38510/00903ADC	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL22
7	JANM38510/00903BAA	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21a
8	JANM38510/00903BAB	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21a
9	JANM38510/00903BAC	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21a
10	JANM38510/00903BBA	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21
11	JANM38510/00903BBB	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21
12	JANM38510/00903BBC	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21
13	JANM38510/00903BCA	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	ML143
14	JANM38510/00903BCB	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	ML143
15	JANM38510/00903BCC	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	ML143
16	JANM38510/00903BDA	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL22
17	JANM38510/00903BDB	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL22
18	JANM38510/00903BDC	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL22
19	JANM38510/00903CAA	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21a
20	JANM38510/00903CAB	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21a
21	JANM38510/00903CAC	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21a
22	JANM38510/00903CBA	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21
23	JANM38510/00903CBB	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21
24	JANM38510/00903CBC	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL21
25	JANM38510/00903CCA	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	ML143
26	JANM38510/00903CCB	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	ML143
27	JANM38510/00903CCC	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	ML143
28	JANM38510/00903CDA	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL22
29	JANM38510/00903CDB	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL22
30	JANM38510/00903CDC	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL22
31	DM7570D	8	1	SPS	18M	BTX	322mW	0.0	5.0	.80	2.0	63n	8.0m	.40	5 C	F179	FL22
32	DM8570N	8	1	SPS	20M	BTX	270m	0.0	5.0	.80	2.0	40n	8.0m	.40	5 C	F52	ML63
33	FLJ441	8	1	SPS	25M	BTX	285m	0.0	5.0	.80	2.0	30n	16m	.40	0 7	F52	ML69
34	FLJ445	8	1	SPS	25M	BTX	285m	0.0	5.0	.80	2.0	30n	16m	.40	2 8		
35	MIC54164J	8	1	SPS	25M	BTX	80m	0.0	5.0	.80	2.0	37n	8.0m	.40	5 C	F179	TO116
36	MIC64164J	8	1	SPS	25M	BTX	80m	0.0	5.0	.80	2.0	37n	8.0m	.40	4 8	F179	TO116
37	MIC74164J	8	1	SPS	25M	BTX	80m	0.0	5.0	.80	2.0	37n	8.0m	.40	0 7	F179	ML2
38	MIC74164N	8	1	SPS	25M	BTX	80m	0.0	5.0	.80	2.0	37n	8.0m	.40	0 7	F179	ML66b
39	SN54LS164J	8	1	SPS	25M	BTX	80m	0.0	5.0	.70	2.0	36n	4.0m	.40	5 C	F179	MO004AA
40	SN54LS164W	8	1	SPS	25M	BTX	80m	0.0	5.0	.70	2.0	36n	4.0m	.40	0 7	F179	ML66b
41	SN74LS164J	8	1	SPS	25M	BTX	80m	0.0	5.0	.80	2.0	36n	4.0m	.40	0 7	F179	ML71
42	SN74LS164N	8	1	SPS	25M	BTX	80m	0.0	5.0	.80	2.0	36n	4.0m	.40	5 C	F179	ML66b
43	SN54164J	8	1	SPS	25M	BTX	168m	0.0	5.0	.80	2.0	42n	8.0m	.40	5 C	F179	MO004AA
44	SN54164W	8	1	SPS	25M	BTX	168m	0.0	5.0	.80	2.0	42n	8.0m	.40	5 C	F179	ML66b
45	SN74164J	8	1	SPS	25M	BTX	168m	0.0	5.0	.80	2.0	42n	8.0m	.40	0 7	F179	ML71
46	SN74164N	8	1	SPS	25M	BTX	168m	0.0	5.0	.80	2.0	42n	8.0m	.40	0 7	F179	TO116
47	M5391P	8	1	SSS		BTX	165m	0.0	5.0	.40	2.4	40n	18m	.40	0 7	F35a	
48	JANM38510/02806STD	8	1	SSS		BTX	36m	0.0	5.0	.70	2.0	150n	2.0m	.30	5 C	F91	FL35
49	CM4021AE	8	1	SSS	600k	MCX	200m	0.0	5.0	.01	4.99	1.0u			4 8	F125	ML4g
50	CM4021AD	8	1	SSS	1.0M	MCX	200m	0.0	5.0	.01	4.99	750n			5 C	F125	ML4g
51	MC14014CL	8	1	SSS	1.0M	MCX	1.0m	0.0	10	.01	.999	500u	.50		4 8	F274	ML5
52	MC14014CP	8	1	SSS	1.0M	MCX	1.0m	0.0	10	.01	.999	500u	.50		4 8	F274	ML145
53	MC14014AL	8	1	SSS	1.5M	MCX	100u	0.0	10	.01	.999	900u	.50		5 C	F274	ML5
54	MC14549AL	8	1	SSS	3.0M	MCX	120m	0.0	10	.05	.995	250n	650u	.50	5 C	F260	ML60b
55	MC14549CL	8	1	SSS	3.0M	MCX	28m	0.0	10	.05	.995	450n	400u	.50	4 8	F260	ML60b
56	MC14549CP	8	1	SSS	3.0M	MCX	28m	0.0	10	.05	.995	450n	400u	.50	4 8	F260	ML5b
57	MC14559AL	8	1	SSS	3.0M	MCX	120m	0.0	10	.05	.995	250n	650u	.50	5 C	F260u	ML60b
58	MC14559CL	8	1	SSS	3.0M	MCX	28m	0.0	10	.05	.995	450n	400u	.50	4 8	F260a	ML60b
59	MC14559CP	8	1	SSS	3.0M	MCX	28m	0.0	10	.05	.995	450n	400u	.50	4 8	F260a	ML5b
60	SN54L91J	8	1	SSS	6.5M	BTX	17m	0.0	5.0	.70	2.0	150n	2.0m	.30	5 C	F91	ML66b
61	SN54L91N	8	1	SSS	6.5M	BTX	17m	0.0	5.0	.70	2.0	150n	2.0m	.30	5 C	F91	ML71
62	SN54L91T	8	1	SSS	6.5M	BTX	17m	0.0	5.0	.70	2.0	150n	2.0m	.30	5 C	F91	TO84
63	SN74L91J	8	1	SSS	6.5M	BTX	17m	0.0	5.0	.70	2.0	150n	3.6m	.40	0 7	F91	ML66b
64	SN74L91N	8	1	SSS	6.5M	BTX	17m	0.0	5.0	.70	2.0	150n	3.6m	.40	0 7	F91	ML71
65	SN74L91T	8	1	SSS	6.5M	BTX	17m	0.0	5.0	.70	2.0	150n	3.6m	.40	0 7	F91	TO84
66	FLJ221	8	1	SSS	10M	BTX	305m	0.0	5.0	.80	2.0	40n	16m	.40	0 7		
67	FLJ225	8	1	SSS	10M	BTX	305m	0.0	5.0	.80	2.0	40n	16m	.40	2 8		
68	HD2524	8	1	SSS	10M	BTX	304m	0.0	5.0	.80	2.0	40n	16m	.40	2 7	F35	ML100
69	HD2524P	8	1	SSS	10M	BTX	304m	0.0	5.0	.80	2.0	40n	16m	.40	2 7	F35	ML64c
70	MC5491AL	8	1	SSS	10M	BTX	175m	0.0	5.0	.40	2.4	40n	16m	.40	5 C	F35	ML66
71	MC7491AL	8	1	SSS	10M	BTX	175m	0.0	5.0	.40	2.4	40n	16m	.40	0 7	F35	ML66
72	MC7491AP	8	1	SSS	10M	BTX	175m	0.0	5.0	.40	2.4	40n	16m	.40	0 7	F35	ML124
73	MC8391F	8	1	SSS	10M	BTX	175m	0.0	5.0	.40	2.4	40n	16m	.40	0 7	F35b	FL32
74	MC8391L	8	1	SSS	10M	BTX	175m	0.0	5.0	.40	2.4	40n	16m	.40	0 7	F35	ML66
75	MC8391P	8	1	SSS	10M	BTX	175m	0.0	5.0	.40	2.4	40n	16m	.40	0 7	F35	ML124
76	MC9391F	8	1	SSS	10M	BTX	175m	0.0	5.0	.40	2.4	40n	16m	.40	5 C	F35b	FL32
77	MC9391L	8	1	SSS	10M	BTX	175m	0.0	5.0	.40	2.4	40n	16m	.40	5 C	F35	ML66
78	N7491A	8	1	SSS	10M	BTX	175m	0.0	5.0	.80	2.0	40n	16m	.40	0 7	F91	ML88
79	N7491F	8	1	SSS	10M	BTX	290m	0.0	5.0	.80	2.0	40n	16m	.40	0 7	F91	ML93b

7. SHIFT REGISTERS

IN ORDER OF(1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	TYPE No.	ORGANIZATION		3 OPER. CODE	4 MAX WORST CASE FREQ. (Hz)		5 STRUC TURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1 BITS PER REGISTER	2 No. REGS		NEG. (V)	POS. (V)			MAX '0' (V)	MIN '1' (V)	@ OUT (V)	LOGIC/ BLOCK		OUTLINE					
1	N7491Q	8	1	SSS	10M0	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	0	7	F91	FL19	
2	S5491A	8	1	SSS	10M0	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	5	C	F91	ML86	
3	S5491F	8	1	SSS	10M0	BTX	250m1	0.0	5.0	.80	2.0	40n0	16m	.40	5	C	F91	ML93b	
4	S5491Q	8	1	SSS	10M0	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	5	C	F91	FL19	
5	S5491W	8	1	SSS	10M0	BTX	250m1	0.0	5.0	.80	2.0	40n0	16m	.40	5	C	F91	FL24	
6	SN54LS91J	8	1	SSS	10M0	BTX	60m1	0.0	5.0	.70	2.0	40n0	4.0m	.40	5	C	F91	ML66b	
7	SN54LS91W	8	1	SSS	10M0	BTX	60m1	0.0	5.0	.70	2.0	40n0	4.0m	.40	5	C	F91	MO004AA	
8	SN74LS91J	8	1	SSS	10M0	BTX	60m1	0.0	5.0	.80	2.0	40n0	4.0m	.40	0	7	F91	ML66b	
9	SN74LS91N	8	1	SSS	10M0	BTX	60m1	0.0	5.0	.80	2.0	40n0	4.0m	.40	0	7	F91	ML71	
10	SN5491AJ	8	1	SSS	10M0	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	5	C	F91	ML66b	
11	SN5491AN	8	1	SSS	10M0	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	5	C	F91	ML71	
12	SN5491AW	8	1	SSS	10M0	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	5	C	F91	MO004AA	
13	SN7491AJ	8	1	SSS	10M0	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	0	7	F91	ML66b	
14	SN7491AN	8	1	SSS	10M0	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	0	7	F91	ML71	
15	N8276A	8	1	SSS	15M0	BTX	340m0	0.0	5.0	.40%	2.6	33n0	16m	.40	0	7	F123	ML86	
16	N8276F	8	1	SSS	15M0	BTX	340m0	0.0	5.0	.40%	2.6	33n0	16m	.40	0	7	F123	ML19f	
17	M53291P	8	1	SSS	18M0	BTX	175m1	0.0	5.0	.40%	2.4	25n1	16m	.40	0	7	F35	TO116	
18	MIC5491AJ	8	1	SSS	18M1	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	5	C	F91	TO116	
19	MIC6491AJ	8	1	SSS	18M1	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	4	8	F91	TO116	
20	MIC7491AJ	8	1	SSS	18M1	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	0	7	F91	TO116	
21	MIC7491AN	8	1	SSS	18M1	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	0	7	F91	ML71	
22	SW7491AJ	8	1	SSS	18M	BTX	290m	0.0	5.0	.80	2.0	40n0	16m	.40	0	7	F35	ML93	
23	SW7491AN	8	1	SSS	18M	BTX	290m	0.0	5.0	.80	2.0	40n0	16m	.40	0	7	F35	ML64a	
24	TL7491AN	8	1	SSS	18M1	BTX	304m	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F242	ML71a	
25	US5491A	8	1	SSS	18M1	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	5	C	F91	ML86a	
26	US5491J	8	1	SSS	18M1	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	5	C	F91	FL20	
27	US7491A	8	1	SSS	18M1	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	0	7	F91	ML86a	
28	US7491J	8	1	SSS	18M1	BTX	175m1	0.0	5.0	.80	2.0	40n0	16m	.40	0	7	F91	FL20	
29	9328FM	8	2												5	C	F1	FL14	
30	RT807	8	2	PPS	10M	BTX	900m	0.0	5.0	.30	3.31				0	7	F268		
31	HD3101P	8	2	SSD		MPX	100m0	2.4	0.0	-9.0*	-4.0#	1.5u0			2	7	F181	ML64c	
32	MC8328L	8	2	SSS	1.0M1	BTX	250m1	0.0	5.0	.45%	2.4	70n	3.0m	.45	0	7	F38	ML5	
33	MC8328P	8	2	SSS	1.0M1	BTX	250m1	0.0	5.0	.45%	2.4	70n	3.0m	.45	0	7	F38	ML40a	
34	MC9328L	8	2	SSS	1.0M1	BTX	250m1	0.0	5.0	.40%	2.4	70n	3.0m	.40	5	C	F38	ML5	
35	JANM38510/02803AEA	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	FL31	
36	JANM38510/02803AEB	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	FL31	
37	JANM38510/02803AEC	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	FL31	
38	JANM38510/02803AFA	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	ML143	
39	JANM38510/02803AFB	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	ML143	
40	JANM38510/02803AFC	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	ML143	
41	JANM38510/02803BEA	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	FL31	
42	JANM38510/02803BEB	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	FL31	
43	JANM38510/02803BEC	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	FL31	
44	JANM38510/02803BFA	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	FL31	
45	JANM38510/02803BFB	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	ML143	
46	JANM38510/02803BFC	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	ML143	
47	JANM38510/02803CEA	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	ML143	
48	JANM38510/02803CEB	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	FL31	
49	JANM38510/02803CEC	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	FL31	
50	JANM38510/02803CFA	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	FL31	
51	JANM38510/02803CFB	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	ML143	
52	JANM38510/02803CFC	8	2	SSS	6.0MΔ*	BTX	268m1	0.0	5.0	.70	2.0	125n	3.2m	.30	5	C	F301	ML143	
53	FLJ481	8	2	SSS	10M	BTX	610m	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F1	ML143	
54	FLJ485	8	2	SSS	10M	BTX	610m	0.0	5.0	.80	2.0	40n	16m	.40	0	7	F1	ML143	
55	93L28DC	8	2	SSS	10M1	BTX	132m	0.0	5.0	.70	2.0	65n1	3.2m	.30	0	7	F1	ML15a	
56	93L28DM	8	2	SSS	10M1	BTX	139m	0.0	5.0	.70	2.0	65n1	3.2m	.30	5	C	F1	ML15a	
57	93L28FC	8	2	SSS	10M1	BTX	132m	0.0	5.0	.70	2.0	65n1	3.2m	.30	0	7	F1	FL14	
58	93L28FM	8	2	SSS	10M1	BTX	139m	0.0	5.0	.70	2.0	65n1	3.2m	.30	5	C	F1	FL14	
59	N8277B	8	2	SSS	15M0	BTX	540m0	0.0	5.0	.40%	2.6	40n0	16m	.40	0	7	F122	ML89a	
60	N8277F	8	2	SSS	15M0	BTX	540m0	0.0	5.0	.40%	2.6	40n0	16m	.40	0	7	F122	ML60a	
61	AM93L28DC	8	2	SSS	16M1	BTX	126m	0.0	5.0	.70	2.0	110n0	4.9m	.30	0	7	F1	ML62	
62	AM93L28DM	8	2	SSS	16M1	BTX	126m	0.0	5.0	.70	2.0	110n0	4.9m	.30	5	C	F1	ML62	
63	AM93L28FM	8	2	SSS	16M1	BTX	126m	0.0	5.0	.70	2.0	110n0	4.9m	.30	0	7	F1	ML62	
64	AM93L28PC	8	2	SSS	16M1	BTX	126m	0.0	5.0	.70	2.0	110n0	4.9m	.30	5	C	F1	FL14	
65	MIC9328-1D	8	2	SSS	20MΔ	BTX	365m	0.0	5.0	.90	1.7	13n	3.0m	.40	5	C	F38	ML61	
66	MIC9328-5D	8	2	SSS															

7. SHIFT REGISTERS

IN ORDER OF(1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	6 TYPE No.	ORGANIZATION			4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
		1 BITS PER REGISTER	2 No. REGS	3 OPER. CODE				NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	(V)			LOGIC/ BLOCK	OUTLINE	
1▼	S8202F	10	1	PPS	15M*	BTX	580m	0.0	5.0	40%	2.6	45n	9.6m	40	5	C	F302b	ML133	
2▼	S8202N	10	1	PPS	15M*	BTX	580m	0.0	5.0	40%	2.6	45n	9.6m	40	5	C	F302b	ML135	
3▼	S8202Q	10	1	PPS	15M*	BTX	580m	0.0	5.0	40%	2.6	45n	9.6m	40	5	C	F302b	FL3b	
4▼	S8203F	10	1	PPS	15M*	BTX	580m	0.0	5.0	40%	2.6	45n	9.6m	40	5	C	F302c	ML133	
5▼	S8203N	10	1	PPS	15M*	BTX	580m	0.0	5.0	40%	2.6	45n	9.6m	40	5	C	F302c	ML135	
6▼	S8203Q	10	1	PPS	15M*	BTX	580m	0.0	5.0	40%	2.6	45n	9.6m	40	5	C	F302c	FL3b	
7	N8274B	10	1	PSS	25M	BTX	567m	0.0	5.0	40%	2.6	40n	16m	40	0	7	F168	ML89a	
8	N8274F	10	1	PSS	25M	BTX	567m	0.0	5.0	40%	2.6	40n	16m	40	0	7	F168	ML60a	
9	N8274W	10	1	PSS	25M	BTX	567m	0.0	5.0	40%	2.6	40n	16m	40	0	7	F168	FL25	
10	S8274B	10	1	PSS	25M	BTX	567m	0.0	5.0	40%	2.6	40n	16m	40	5	C	F168	ML89a	
11	S8274F	10	1	PSS	25M	BTX	567m	0.0	5.0	40%	2.6	40n	16m	40	5	C	F168	ML60a	
12	S8274W	10	1	PSS	25M	BTX	567m	0.0	5.0	40%	2.6	40n	16m	40	5	C	F168	FL25	
13	MM5081	10	1	SPS	50k	MPX	190m	-16	0.0	-2.5	-7.0	2.0u	40u	-55	2	7	F69	ML63	
14	3801-4-6H	10	1	SPS	500k	MPX	190m	27	0.0	2.0	-9.0				5	8	F77	ML70	
15	3801-9-6H	10	1	SPS	500k	MPX	190m	27	0.0	2.0	-9.0				0	7	F77	ML70	
16	N8273B	10	1	SPS	25M	BTX	540m	0.0	5.0	40%	2.6	40n	9.6m	40	0	7	F167	ML89a	
17	N8273F	10	1	SPS	25M	BTX	540m	0.0	5.0	40%	2.6	40n	9.6m	40	0	7	F167	ML60a	
18	N8273W	10	1	SPS	25M	BTX	540m	0.0	5.0	40%	2.6	40n	9.6m	40	0	7	F167	FL25	
19	S8273B	10	1	SPS	25M	BTX	540m	0.0	5.0	40%	2.6	40n	9.6m	40	5	C	F167	ML89a	
20	S8273F	10	1	SPS	25M	BTX	540m	0.0	5.0	40%	2.6	40n	9.6m	40	5	C	F167	ML60a	
21	S8273W	10	1	SPS	25M	BTX	540m	0.0	5.0	40%	2.6	40n	9.6m	40	5	C	F167	FL25	
22	AM25L04DC	12	1	PPS	3.5M	BTX	225m	0.0	5.0	-7.0	2.0	140n	4.9m	30	0	7	F257a	ML148	
23	AM2504DC	12	1	PPS	15M	BTX	620m	0.0	5.0	80	2.0	38n	9.6m	40	0	7	F257a	ML148	
24	AM2504DM	12	1	PPS	15M	BTX	550m	0.0	5.0	80	2.0	38n	9.6m	40	5	C	F257a	ML148	
25	AM2504FM	12	1	PPS	15M	BTX	550m	0.0	5.0	80	2.0	38n	9.6m	40	5	C	F257a	FL33a	
26	AM2504PC	12	1	PPS	15M	BTX	620m	0.0	5.0	80	2.0	38n	9.6m	40	0	7	F257a	ML72a	
27	AM25L04DM	12	1	PPS	25M	BTX	550m	0.0	5.0	80	2.0	38n	9.6m	40	5	C	F257a	ML148	
28	AM25L04FM	12	1	PPS	25M	BTX	550m	0.0	5.0	80	2.0	38n	9.6m	40	5	C	F257a	FL33a	
29	AM25L04PC	12	1	PPS	25M	BTX	620m	0.0	5.0	80	2.0	38n	9.6m	40	0	7	F257a	ML72a	
30#	HD3118P	12	2	SSD		MPX	150m	24	0.0	-9.0*	-4.0#	2.0u			10k	2	7	F186	ML64c
31	UC6316	16	2	PPS	2.0M	MPA	350m	12	5.0	80	3.5	225n	1.6m	.50	5	C	F121	TO99	
32	UC7316	16	2	PPS	2.0M	MPA	350m	12	5.0	80	3.5	225n	1.6m	.50	0	7	F121	TO99	
33#	HD3116P	16	2	SSD		MPX	200m	24	0.0	-9.0*	-4.0#	2.0u			10k	2	7	F186	ML64c
34	S2001K	16	2	SSS	1.0M	MPG	200m	28	0.0	-2.0	-1.0	475n			5	8	F48	CY7	
35#	M122T1	16	2	SSS	1.0M	MPX	200m	27	0.0	-2.0	-9.0				0	7	F3a	TO100	
36#	M122T8	16	2	SSS	1.0M	MPX	200m	27	0.0	-2.0	-9.0				5	8	F3a	TO100	
37	MM404H	16	2	SSS	1.0M	MPX	300m	18	0.0	-7.0*	-2.5#				5	C	F62	TO99	
38	MM504H	16	2	SSS	1.0M	MPX	300m	18	0.0	-7.0*	-2.5#				2	7	F62	TO99	
39	SS5-8211-31	16	2	SSS	2.0M	MPN	160m	12	5.0	80	3.5	250n	1.6m	.40	0	7	F27	ML7	
40	SS5-8211-55	16	2	SSS	2.0M	MPN	160m	12	5.0	80	3.5	250n	1.6m	.40	0	7	F27	ML65	
41	SS5-8212-16	16	2	SSS	2.0M	MPN	160m	12	5.0	80	3.5	225n	1.6m	.40	0	7	F25	TO78	
42	SS5-8212-30	16	2	SSS	2.0M	MPN	160m	12	5.0	80	3.5	225n	1.6m	.40	0	7	F25c	ML64	
43	SS5-8212-69	16	2	SSS	2.0M	MPN	160m	12	5.0	80	3.5	225n	1.6m	.40	0	7	F25c	ML9	
44	SS6-8211-55	16	2	SSS	2.0M	MPN	200m	12	5.0	80	3.5	300n	1.6m	.40	5	C	F27	ML65	
45	SS6-8212-16	16	2	SSS	2.0M	MPN	200m	12	5.0	80	3.5	300n	1.6m	.40	5	C	F25	TO78	
46	SS6-8212-69	16	2	SSS	2.0M	MPN	200m	12	5.0	80	3.5	300n	1.6m	.40	5	C	F25c	ML9	
47	MM4040H	16	2	SSS	2.2M	MPX	168m	12	5.0	80	3.0	300n	1.6m	.40	5	C	F67a	TO99	
48	MM5040H	16	2	SSS	2.2M	MPX	168m	12	5.0	80	3.0	300n	1.6m	.40	2	7	F67a	TO99	
49#	M120T1	16s	3	SSS	250k	MPX	50m	27	0.0	-2.0	-9.0	1.2u	10u	-1.0	0	7	F3	TO100	
50#	M120T8	16s	3	SSS	250k	MPX	50m	27	0.0	-2.0	-9.0	1.2u	10u	-1.0	5	8	F3	TO100	
51	CRC1504-1-2	16	4	SSD	1.0M	MPX	700u	12	5.0	0.5	4.3		1.6m	.40	50k	2	8	F137	ML59
52	CRC1504-2-2	16	4	SSD	1.0M	MPX	700u	12	5.0	0.5	4.3		1.6m	.40	50k	2	8	F137	FL3
53▼	SN74S225N	16	5	PPS	2.0M	BTX	700u	12	5.0	0.5	4.3		1.6m	.40	50k	2	8	F307	ML161
54	RT813	17s	2	SPS	1.0M	BTX	1.7	0.0	5.0	30	3.3t				0	7	F271		
55	MS618	24s	4	SSS	2.5M	MCX	20n	10	0.0	0.1%	9.99	700n			5	C	F59	ML7	
56	MM400	25	2	SSD	1.0M	MPX	90m	5.0	5.0	80*	2.5	500n	-18	600	5	C	F54	TO99	
57	MM401	25	2	SSD	1.0M	MPX	90m	5.0	5.0	80*	2.5	500n	-18	600	5	C	F54a	TO99	
58	MM500	25	2	SSD	1.0M	MPX	90m	5.0	5.0	80*	2.5	500n	-18		2	7	F54	TO99	
59	MM501	25	2	SSD	1.0M	MPX	90m	5.0	5.0	80*	2.5	500n	-18		2	7	F54a	TO99	
60	S2002K	25	2	SSS	1.0M	MPG	90m	28	0.0	-2.0	-1.0	450n			5	8	F48	CY7	
61	SL5-4025-30	25	4	SSS	1.0M	MPN	300m	12	5.0	80	3.5	350n	1.6m	.40	0	7	F26	ML64	
62	SL5-4025-69	25	4	SSS	1.0M	MPN	300m	12	5.0	80	3.5	350n	1.6m	.40	0	7	F26	ML9	
63	SL6-4025-69	25	4	SSS	1.0M	MPN	325m	12	5.0	80	3.5	450n	1.6m	.40	5	C	F26	ML9	
64	MCS2104	25	4	SSS	2.0M	MPN	300m	12	5.0	70	3.5	240n			5	C	F95g	ML7	
65	RT809	30	1	SSS	1.0M	BTX	1.7	0.0	5.0	30	3.3t				0	7	F270		
66	MTS1002	32	2	SSS	1.0M	MPC	85m	16	0.0	-7.0	-2.5	750n			2	8	F120j	TO99	
67	S2003K	32	2	SSS	1.0M	MPG	300m	28	0.0	-2.0	-1.0	450n							

7. SHIFT REGISTERS

IN ORDER OF(1)No.BITS/REG(2)No.REGISTERS
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	TYPE No.	ORGANIZATION		OPER. CODE	4 MAX WORST CASE FREQ. (Hz)	5 STRUCTURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
		1 BITS PER REGISTER	2 No. REGS					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)		(A)	@ OUT (V)			LOGIC/BLOCK	OUTLINE	
1	S2004K	50	2	SSS	1.0M	MPG	275m	28	0.0	-2.0	-1.0	450n	1.6m	.40		5 8	F48	CY7	
2	SL5-2050-16	50	2	SSS	1.0M	MPN	275m	12	5.0	.80	3.5	400n	1.6m	.40		0 7	F25	TO78	
3	SL5-2050-30	50	2	SSS	1.0M	MPN	275m	12	5.0	.80	3.5	400n	1.6m	.40		0 7	F25a	ML64	
4	SL5-2050-69	50	2	SSS	1.0M	MPN	275m	12	5.0	.80	3.5	400n	1.6m	.40		0 7	F25a	ML9	
5	SL6-2050-16	50	2	SSS	1.0M	MPN	300m	12	5.0	.80	3.5	500n	1.6m	.40		5 C	F25	TO78	
6	SL6-2050-69	50	2	SSS	1.0M	MPN	300m	12	5.0	.80	3.5	500n	1.6m	.40		5 C	F25a	ML9	
7	TMS3002LR	50	2	SSS	1.0M	MPT	450m	28	0.0	-2.0	-9.0	400n	1.0m	-11		5 8	F95b	TO100	
8	2509A	50	2	SSS	2.0M	MPG	535m	5.0	5.0	1.0	3.2s	300n	3.2m	.40		0 7	F128	ML86	
9	2509K	50	2	SSS	2.0M	MPG	535m	5.0	5.0	1.0	3.2s	300n	3.2m	.40		0 7	F128a	CY7	
10#	HD3109P	60s	3	SSD		MPX	70m	24	0.0	-9.0*	-4.0#	3.0u			10k	2 7	F182	ML88a	
11#	HD3119P	60s	3	SSD		MPX	70m	24	0.0	-9.0*	-4.0#	1.5u			10k	2 7	F187	ML94a	
12#	HD3224P	64	1	SSD		MPX		14	0.0	-6.5*	-2.0#	1.5u			10k	2 7	F200	ML94a	
13	JANM38510/05705AEA	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	ML142	
14	JANM38510/05705AEB	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	ML142	
15	JANM38510/05705AEC	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	ML142	
16	JANM38510/05705AFA	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	FL138	
17	JANM38510/05705AFB	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	FL138	
18	JANM38510/05705AFC	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	FL138	
19	JANM38510/05705BEA	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	ML142	
20	JANM38510/05705BEB	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	ML142	
21	JANM38510/05705BEC	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	ML142	
22	JANM38510/05705BFA	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	ML142	
23	JANM38510/05705BFB	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	FL138	
24	JANM38510/05705BFC	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	FL138	
25	JANM38510/05705CEA	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	ML142	
26	JANM38510/05705CEB	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	ML142	
27	JANM38510/05705CEC	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	ML142	
28	JANM38510/05705CFA	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	ML142	
29	JANM38510/05705CFB	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	FL138	
30	JANM38510/05705CFC	64	1	SSS	700k	MCX	200m	0.0	5.0	1.25	3.25	1.9u	900u	.50		5 C	F253	FL138	
31	CD4031AE	64	1	SSS	1.0M	MCX	14m	0.0	10	0.5%	9.95	800n	80u	0.5		4 8	F176	MO001AC	
32#	HBF4031AE	64	1	SSS	1.0M	MCX	14m	0.0	10	0.5%	9.9	800n	80u	0.5		4 8	F176	MO001AC	
33#	HBF4031AF	64	1	SSS	1.0M	MCX	14m	0.0	10	0.5%	9.9	800n	80u	0.5		4 8	F176	ML127C	
34	CD4031AD	64	1	SSS	2.0M	MCX	15m	0.0	10	0.5%	9.95	400n	140u	0.5		5 C	F176	MO001AE	
35	CD4031AK	64	1	SSS	2.0M	MCX	15m	0.0	10	0.5%	9.95	400n	140u	0.5		5 C	F176	MO004AG	
36#	HBC4031AD	64	1	SSS	2.0M	MCX	15m	0.0	10	0.5%	9.9	400n	140u	0.5		5 C	F176	ML127C	
37#	HBC4031AF	64	1	SSS	2.0M	MCX	15m	0.0	10	0.5%	9.9	400n	140u	0.5		5 C	F176	ML127C	
38#	HBC4031AK	64	1	SSS	2.0M	MCX	15m	0.0	10	0.5%	9.9	400n	140u	0.5		5 C	F176	MO004AG	
39#	MC14557CL	64	1	SSS	2.7MA	MCX	14m	0.0	10	0.5%	9.95	510n	400u	.50		4 8	F299	ML60b	
40#	MC14557CP	64	1	SSS	2.7MA	MCX	14m	0.0	10	0.5%	9.95	510n	400u	.50		4 8	F299	ML5b	
41#	MC14557AL	64	1	SSS	5.0MA	MCX	14m	0.0	10	0.5%	9.95	510n	650u	.50		5 C	F299	ML60b	
42	MS612	64	1	SSS	25M	MCX	10u	0.0	0.0	0.10%	9.99	40n				5 C	F58	ML7	
43#	HD3213P	64	2	PPD	100k	MPX		14	0.0	-6.5*	-2.0#	1.5u			10k	2 7	F184	ML94a	
44	MM5001	64	2	SSD	1.6M	MPX	500m	12	5.0	.70	3.0	100n	1.6m	.40		10k	2 7	F68	TO100
45	MM4001AH	64	2	SSD	2.5M	MPG	119m	12	5.0	.80	3.0	200n	1.6m	.40		10k	5 C	F68	CY7a
46	MM4010AH	64	2	SSD	2.5M	MPG	119m	12	5.0	.80	3.0	200n	1.6m	.40		10k	5 C	F193	CY7a
47	MM5001AH	64	2	SSD	2.5M	MPX	119m	12	5.0	.80	3.0	200n	1.6m	.40		10k	2 7	F68	TO100
48	MM5010AH	64	2	SSD	2.5M	MPX	119m	12	5.0	.80	3.0	200n	1.6m	.40		10k	2 7	F193	TO100
49	MM5011A	64	2	SSD	2.5M	MPX	300m	12	5.0	.80	3.0		1.6m	.400	600	10k	5 C	F172	CN7
50	MM410	64	2	SSD	4.0M	MPX	500m	20	0.0	-2.5	-7.0				10k	2 7	F172	CN7	
51	MM510	64	2	SSD	4.0M	MPX	500m	20	0.0	-2.5	-7.0				10k	2 7	F172	CN7	
52	CRC1001-3-1	64	2	SSS	1.0M	MPN	220m	12	5.0	.80	3.5	400n	1.6m	.40		5 C	F25	CY3b	
53	SL5-2064-16	64	2	SSS	1.0M	MPN	275m	12	5.0	.80	3.5	400n	1.6m	.40		0 7	F25	TO78	
54	SL5-2064-30	64	2	SSS	1.0M	MPN	275m	12	5.0	.80	3.5	400n	1.6m	.40		0 7	F25a	ML64	
55	SL5-2064-69	64	2	SSS	1.0M	MPN	275m	12	5.0	.80	3.5	400n	1.6m	.40		0 7	F25a	ML9	
56	SL6-2064-16	64	2	SSS	1.0M	MPN	300m	12	5.0	.80	3.5	500n	1.6m	.40		5 C	F25	TO78	
57	SL6-2064-69	64	2	SSS	1.0M	MPN	300m	12	5.0	.80	3.5	500n	1.6m	.40		5 C	F25a	ML9	
58	MC14517CL	64	2	SSS	1.5MA	MCX	1.0m	0.0	10	0.1%	9.99s	500u	.50		4 8	F248	ML5		
59	MC14517CP	64	2	SSS	1.5MA	MCX	1.0m	0.0	10	0.1%	9.99s	500u	.50		4 8	F248	ML145		
60	MC14517AL	64	2	SSS	2.0MA	MCX	100u	0.0	10	0.1%	9.99s	900u	.50		5 C	F248	ML5		
61#	M137T1	64	2	SSS	2.0M	MPN	200m	12	5.0	.80	3.5	300n	1.6m	.40		0 7	F304	TO99	
62#	M137T2	64	2	SSS	2.0M	MPN	200m	12	5.0	.80	3.5	300n	1.6m	.40		5 C	F304	TO99	
63	MTS2105	64	2	SSS	2.0M	MPN	300m	12	5.0	.70	3.5	240n				5 C	F95h	TO99	
64	MM5054D	64s	2	SSS	2.2M	MPG	146m	12	5.0	.80	3.0	300n	1.6m	.40		2 7	F22		

7. SHIFT REGISTERS

IN ORDER OF (1) NO. BITS/REG (2) NO. REGISTERS
(3) OP. CODE (4) MAX W/C REG (5) STRUCT (6) TYPE No

LINE No.	6	TYPE No.	ORGANIZATION		3	4	MAX 5	MAX 5	RATED POWER SUP.	INPUT LOGIC LEVELS		MAX PROP. DELAY	MIN OUTPUT SINK CURRENT		MIN CLOCK FREQ.	OPER. TEMP. RANGE	DRAWINGS										
			1	2						OPER. CODE	WORST CASE FREQ. (Hz)		STRUC TURE CODE	OPER. POWER DISS. (W)			SPAN		MAX '0' (V)	MIN '1' (V)	(s)	(A)	@ OUT (V)	(Hz)	CODE	LOGIC/ BLOCK	OUTLINE
																	NEG. (V)	POS. (V)									
1		MM5052H	80	2	SSS	1.6M	MPX	212m	12	5.0	.80	3.0	300n	1.6m	.40	2	7	F71	TO100								
2		MM4021D	80	3	SSD	2.5M	MPX	163m	12	5.0	.80	3.0	200n	1.6m	.40	10k	5	C	F140b	ML2							
3		MM4021H	80	3	SSD	2.5M	MPX	163m	12	5.0	.80	3.0	200n	1.6m	.40	10k	5	C	F68a	TO100							
4		MM4021N	80	3	SSD	2.5M	MPX	163m	12	5.0	.80	3.0	200n	1.6m	.40	10k	5	C	F140b	ML2e							
5		MM5021D	80	3	SSD	2.5M	MPX	163m	12	5.0	.80	3.0	200n	1.6m	.40	10k	2	7	F140b	ML2							
6		MM5021H	80	3	SSD	2.5M	MPX	163m	12	5.0	.80	3.0	200n	1.6m	.40	10k	2	7	F68a	TO100							
7		MM5021N	80	3	SSD	2.5M	MPX	163m	12	5.0	.80	3.0	200n	1.6m	.40	10k	2	7	F140b	ML2e							
8		TMS3409JC	80	4	PPD	5.0M	MPT	300m	12	5.0	.80	3.25	100n	1.6m	.40	2	8	F119	ML82								
9		TMS3409NC	80	4	PPD	5.0M	MPT	300m	12	5.0	.80	3.25	100n	1.6m	.40	2	8	F119	ML48a								
10		IM7780CDE	80	4	SSD	2.5M	MPG	355m	12	5.0	.80	3.5	200n	1.6m	.40	10k	0	7	F152	ML89							
11		IM7780CPE	80	4	SSD	2.5M	MPG	355m	12	5.0	.80	3.5	200n	1.6m	.40	10k	0	7	F152	ML89							
12		MK1007P	80	4	SSD	2.5M	MPI	220m	12	5.0	.80	3.5	200n	1.6m	.40	10k	0	7	F152	ML22							
13		MM4020D	80	4	SSD	2.5M	MPX	212m	12	5.0	.80	3.0	200n	1.6m	.40	10k	5	C	F140a	ML2							
14		MM4020N	80	4	SSD	2.5M	MPX	212m	12	5.0	.80	3.0	200n	1.6m	.40	10k	5	C	F140a	ML2e							
15		MM5020D	80	4	SSD	2.5M	MPX	212m	12	5.0	.80	3.0	200n	1.6m	.40	10k	2	7	F140a	ML2							
16		MM5020N	80	4	SSD	2.5M	MPX	212m	12	5.0	.80	3.0	200n	1.6m	.40	10k	2	7	F140a	ML2e							
17		S2182	80	4	SSS	1.0M	MX	547m	12	5.0	.60	4.0	500n	1.6m	.60	1.0M	#	2	F300	ML82							
18		S232B	80	4	SSS	1.5M	MPG	640m	12	5.0	.60	3.4	400n	1.6m	.50	0	7	F303	ML132								
19		MCS2109	80	4	SSS	2.0M	MPX	440m	12	5.0	.80	3.5	230n	1.6m	.40	2	8	F239	MP2								
20		S2182A	80	4	SSS	2.0M	MX	547m	12	5.0	.60	4.0	350n	1.6m	.60	2.0M	#	2	F300	ML82							
21		S2183	81	4	SSS	1.0M	MX	547m	12	5.0	.60	4.0	500n	1.6m	.60	1.0M	#	2	F300	ML82							
22		S2183A	81	4	SSS	2.0M	MX	547m	12	5.0	.60	4.0	350n	1.6m	.60	2.0M	#	2	F300	ML82							
23		TMS3126LC	96	2	SSS	2.5M	MPT	510m	12	5.0	1.2	3.2	250n	1.6m	.50	2	8	F240	TO99								
24		TMS3126NC	96	2	SSS	2.5M	MPT	510m	12	5.0	1.2	3.2	250n	1.6m	.50	2	8	F240	ML2								
25		1406T	100	2	SSD	2.0M	MPG	80m	5.0	5.0	.80	2.5	100n	200u	.40	1.0M	#	5	C	TO99							
26		1407T	100	2	SSD	2.0M	MPG	80m	5.0	5.0	.80	2.5	100n	200u	.40	1.0M	#	5	C	TO99							
27		1506T	100	2	SSD	2.0M	MPG	80m	5.0	5.0	.80	2.5	100n	200u	.40	1.0M	#	5	C	TO99							
28		1507T	100	2	SSD	2.0M	MPG	80m	5.0	5.0	.80	2.5	100n	200u	.40	1.0M	#	5	C	TO99							
29		HD3506	100	2	SSD	2.0M	MPG	600m	5.0	5.0	.80	2.5	100n	200u	.40	1.0M	#	5	C	TO99							
30		HD3507	100	2	SSD	2.0M	MPG	600m	5.0	5.0	.80	2.5	100n	200u	.40	1.0M	#	5	C	TO99							
31		MM406	100	2	SSD	1.0M	MPX	300m	5.0	5.0	.80	2.5	500n	1.6m	.40	5	C	F54d	TO99								
32		MM407	100	2	SSD	1.0M	MPX	300m	5.0	5.0	.80	2.5	500n	1.6m	.40	5	C	F54e	TO99								
33		MM506	100	2	SSD	1.0M	MPX	300m	5.0	5.0	.80	2.5	500n	1.6m	.40	5	C	F54d	TO99								
34		MM507	100	2	SSD	1.0M	MPX	300m	5.0	5.0	.80	2.5	500n	1.6m	.40	5	C	F54e	TO99								
35		MTS1001	100	2	SSD	2.0M	MPG	120m	10	0.0	-7.0	-2.0	350n	1.6m	.40	10k	2	8	F120h	TO99							
36		M1406	100	2	SSD	2.0M	MPG	110m	5.0	5.0	.80	2.5	100n	1.6m	.40	6.0k	5	C	F133b	CY4a							
37		M1407	100	2	SSD	2.0M	MPG	110m	5.0	5.0	.80	2.5	100n	1.6m	.40	6.0k	5	C	F133b	CY4a							
38		M1506	100	2	SSD	2.0M	MPG	110m	5.0	5.0	.80	2.5	100n	1.6m	.40	6.0k	0	7	F133b	CY4a							
39		M1507	100	2	SSD	2.0M	MPG	110m	5.0	5.0	.80	2.5	100n	1.6m	.40	6.0k	0	7	F133b	CY4a							
40		MF1406	100	2	SSD	2.0M	MPG	500m	5.0	5.0	.80	2.5	100n	1.6m	.40	10k	5	C	F11	TO99							
41		MF1407	100	2	SSD	2.0M	MPG	500m	5.0	5.0	.80	2.5	100n	1.6m	.40	10k	5	C	F11a	TO99							
42		MF1506	100	2	SSD	2.0M	MPG	500m	5.0	5.0	.80	2.5	100n	1.6m	.40	10k	2	7	F11	TO99							
43		MF1507	100	2	SSD	2.0M	MPG	500m	5.0	5.0	.80	2.5	100n	1.6m	.40	10k	2	7	F11a	TO99							
44		MM4006AD	100	2	SSD	2.5M	MPX	153m	12	5.0	.80	3.0	200n	1.6m	.40	10k	5	C	F194	ML63a							
45		MM4006AH	100	2	SSD	2.5M	MPX	153m	12	5.0	.80	3.0	200n	1.6m	.40	10k	5	C	F133b	TO99							
46		MM4007D	100	2	SSD	2.5M	MPX	153m	12	5.0	.80	3.0	200n	1.6m	.40	10k	5	C	F194	ML63a							
47		MM4007H	100	2	SSD	2.5M	MPX	153m	12	5.0	.80	3.0	200n	1.6m	.40	10k	5	C	F133b	CY3							
48		MM5006AD	100	2	SSD	2.5M	MPX	153m	12	5.0	.80	3.0	200n	1.6m	.40	10k	2	7	F194	ML63a							
49		MM5006AH	100	2	SSD	2.5M	MPX	153m	12	5.0	.80	3.0	200n	1.6m	.40	10k	2	7	F133b	CY3							
50		MM5007D	100	2	SSD	2.5M	MPX	153m	12	5.0	.80	3.0	200n	1.6m	.40	10k	2	7	F194	ML63a							
51		MM5007H	100	2	SSD	2.5M	MPX	153m	12	5.0	.80	3.0	200n	1.6m	.40	10k	2	7	F133b	CY3							
52		2506T	100	2	SSD	3.0M	MPG	535m	5.0	5.0	1.0	3.2	150n	1.6m	.40	600	0	7	F127	CY3c							
53		2506V	100	2	SSD	3.0M	MPG	535m	5.0	5.0	1.0	3.2	150n	1.6m	.40	600	0	7	F127a	ML87							
54		2507T	100	2	SSD	3.0M	MPG	535m	5.0	5.0	1.0	3.2	150n	1.6m	.40	600	0	7	F127	CY3c							
55		2507V	100	2	SSD	3.0M	MPG	535m	5.0	5.0	1.0	3.2	150n	1.6m	.40	600	0	7	F127a	ML87							
56		2517T	100	2	SSD	3.0M	MPG	535m	5.0	5.0	1.0	3.2	150n	1.6m	.40	600	0	7	F127	CY3c							
57		2517V	100	2	SSD	3.0M	MPG	535m	5.0	5.0	1.0	3.2	150n	1.6m	.40	600	0	7	F127a	ML87							
58		MTS2013	100	2	SSD	3.0M	MPN	200m	5.0	5.0	1.0	4.0	150n	1.6m	.40	10k	2	8	F120h	TO99							
59		MM2406	100	2	SSD	5.0M	MPG	500m	5.0	5.0	.80	3.0	75n	1.6m	.50	30	0	5	C	F71a	TO99						
60		MM2407	100	2	SSD	5.0M	MPG	500m	5.0	5.0	.80	3.0	75n	1.6m	.50	30	0	5	C	F71a	TO99						
61		MM3406	100	2	SSD	5.0M	MPG	500m	5.0	5.0	.80	3.0	75n	1.6m													

7. SHIFT REGISTERS

IN ORDER OF (1)No.BITS/REG(2)No.REGISTER
(3)OP.CODE(4)MAX W/C FREQ(5)STRUCT(6)TYPE No

LINE No.	TYPE No.	ORGANIZATION			MAX WORST CASE FREQ. (Hz)	STRUC TURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT @ OUT (V)		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS		
		1	2	OPER. CODE				NEG. (V)	POS. (V)	MAX 0' (V)	MIN 1' (V)		LOGIC/BLOCK	OUTLINE					
																	BITS PER REGISTER	No. REGS	
1	SL9-4128-69#2	128Δ	4	SSS	4.0M	MPG	380m	12	5.0	80	3.5	260n	1.6m	50	0	7	F147	ML9	
2	2522V	132	2	SSS	1.5M	MPG	535m	12	5.0	1.0	3.2	350n	1.6m	40	0	7	F130	ML87	
3	TMS3129LC	132	2	SSS	2.5M	MPT	510m	12	5.0	1.2	3.2	250n	1.6m	50	2	8	F240	TO99	
4	TMS3129NC	132	2	SSS	2.5M	MPT	510m	12	5.0	1.2	3.2	250n	1.6m	50	2	8	F240	ML7	
5	S2184	132	4	SSS	1.0M	MXM	547m	12	5.0	60%	4.0	500n	1.6m	60	1.0M#	2	8	F300	ML82
6	S2184A	132	4	SSS	2.0M	MXM	547m	12	5.0	60%	4.0	350n	1.6m	60	2.0M#	2	8	F300	ML82
7	TMS3113JC	133Δ	2	SSS	2.0M	MPT	280m	12	5.0	60	3.5	350n	1.6m	50	2	8	F115	ML82	
8	TMS3113NC	133Δ	2	SSS	2.0M	MPT	280m	12	5.0	60	3.5	350n	1.6m	50	2	8	F115	ML48a	
9	TMS3130LC	133	2	SSS	2.5M	MPT	510m	12	5.0	1.2	3.2	250n	1.6m	50	2	8	F240	TO99	
10	TMS3130NC	133	2	SSS	2.5M	MPT	510m	12	5.0	1.2	3.2	250n	1.6m	50	2	8	F240	ML7	
11	S2185	133	4	SSS	1.0M	MXM	547m	12	5.0	60%	4.0	500n	1.6m	60	1.0M#	2	8	F300	ML82
12	S2185A	133	4	SSS	2.0M	MXM	547m	12	5.0	60%	4.0	350n	1.6m	60	2.0M#	2	8	F300	ML82
13	TMS3131LC	136	2	SSS	2.5M	MPT	510m	12	5.0	1.2	3.2	250n	1.6m	50	2	8	F240	TO99	
14	TMS3131NC	136	2	SSS	2.5M	MPT	510m	12	5.0	1.2	3.2	250n	1.6m	50	2	8	F240	ML7	
15	ITT1144-1C	144Δ	1	SSS	3.0M	MPG	150m	12	5.0	80	4.0	150n	1.6m	40	5	C	F188	CY1	
16	TMS3132LC	144	2	SSS	2.5M	MPT	510m	12	5.0	1.2	3.2	250n	1.6m	50	2	8	F240	TO99	
17	TMS3132NC	144	2	SSS	2.5M	MPT	510m	12	5.0	1.2	3.2	250n	1.6m	50	2	8	F240	ML7	
18	CD4062AK	200	1	SSD	1.0M	MCX	200m	0.0	5.0	0.1%	4.99	2.0u	4.0m	4.99	150	5	C	F262	Δ002AG
19	CD4062AT	200	1	SSD	1.0M	MCX	200m	0.0	5.0	0.1%	4.99	2.0u	4.0m	4.99	150	5	C	F262	Δ006AG
20	2511A	200	2	SSS	2.0M	MPG	535m	5.0	5.0	1.0	3.2	300n	3.2m	40	0	7	F128a	ML86	
21	2511K	200	2	SSS	2.0M	MPG	535m	5.0	5.0	1.0	3.2	300n	3.2m	40	0	7	F128a	CY7	
22	HD3510	256	1	SSD	2.0M	MPG	600m	5.0	5.0	80	3.5	150n	1.6m	40	10k	2	7	F204c	ML90a
23	3383-9-5F	256	1	SSD	2.0M	MPG	155m	12	5.0	85	4.0	150n	1.6m	40	10k	0	7	F78	TO100
24	ITT3383-5C	256	1	SSD	2.0M	MPG	130m	12	5.0	85	4.0	150n	1.6m	40	10k	0	7	F78	CY1
25	UC7325#1	256	1	SSS	2.5M	MPX		15	5.0	60	2.35	1.6m	40	0	7	F120g	TO99		
26	MM4056H	256	2	PPS	2.2M	MPG		12	5.0	80	3.0	350n	1.6m	40	5	C	F292a	TO100	
27	MM5056H	256	2	PPS	2.2M	MPG		12	5.0	80	3.0	350m	1.6m	40	0	7	F292a	TO100	
28	MT125T1	256	2	SSD	1.0M	MPX	160m	27	0.0	-2.0	-1.0	350n	1.0u	-1.0	10k	0	7	F49	TO100
29	MM4012D	256	2	SSD	2.5M	MPX	272m	12	5.0	80	3.0	250n	1.6m	40	10k	5	C	F195	ML7
30	MM4012N	256	2	SSD	2.5M	MPX	272m	12	5.0	80	3.0	250n	1.6m	40	10k	5	C	F195	ML2e
31	MM4019D	256	2	SSD	2.5M	MPX	204m	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F194	ML63a
32	MM4019H	256	2	SSD	2.5M	MPX	204m	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F133b	TO99
33	MM5012D	256	2	SSD	2.5M	MPX	272m	12	5.0	80	3.0	250n	1.6m	40	10k	2	7	F195	ML7
34	MM5012N	256	2	SSD	2.5M	MPX	272m	12	5.0	80	3.0	250n	1.6m	40	10k	2	7	F195	ML2e
35	MM5019D	256	2	SSD	2.5M	MPX	204m	12	5.0	80	3.0	200n	1.6m	40	10k	2	7	F194	ML63a
36	MM5019H	256	2	SSD	2.5M	MPX	204m	12	5.0	80	3.0	200n	1.6m	40	10k	2	7	F133b	CY3
37	S1705	256	2	SSD	3.0M	MPI	340m	12	5.0	90	3.7	100n	1.6m	40	10k	0	7	F203	ML6a
38	2527V	256	2	SSS	1.5M	MPG	535m	12	5.0	60	3.4	450n	1.6m	50	0	7	F130	ML163	
39	SL9-2256-23#1	256Δ	2	SSS	2.5M	MPG	200m	5.0	5.0	80	3.5	340n	1.6m	50	0	7	F147b	TO100	
40	SL9-2256-28#1	256Δ	2	SSS	2.5M	MPG	200m	5.0	5.0	80	3.5	340n	1.6m	50	0	7	F147d	ML64	
41	SL9-2256-69#1	256Δ	2	SSS	2.5M	MPG	200m	5.0	5.0	80	3.5	340n	1.6m	50	0	7	F147d	ML9	
42	SL9-2256-23#2	256Δ	2	SSS	4.0M	MPG	380m	12	5.0	80	3.5	260n	1.6m	50	0	7	F147b	TO100	
43	SL9-2256-28#2	256Δ	2	SSS	4.0M	MPG	380m	12	5.0	80	3.5	260n	1.6m	50	0	7	F147d	ML64	
44	SL9-2256-69#2	256Δ	2	SSS	4.0M	MPG	380m	12	5.0	80	3.5	260n	1.6m	50	0	7	F147d	ML9	
45	AM1402A59F#2	256	4	PPD	3.0M	MPG	200m	9.0	5.0	-1.0	-2.0	110n	1.6m	50	1.5M#	0	7	F255b	FL33a
46	AM1402A#2	256	4	PPD	3.0M	MPG	600m	9.0	5.0	-4.2	-2.0	110n	1.6m	50	1.5M#	0	7	F255b	ML62c
47	AM1402ADM#2	256	4	PPD	3.0M	MPG	600m	9.0	5.0	80	3.0	110n	1.6m	50	100	5	C	F255b	ML62c
48	AM1402APC#2	256	4	PPD	3.0M	MPG	600m	9.0	5.0	80	3.0	110n	1.6m	50	100	0	7	F255b	ML89a
49	1402A	256	4	PPD	5.0M	MPG	500m	5.0	5.0	50	2.4	100n	1.6m	50	5	C		MO7	
50	AM1402A#1	256	4	PPD	5.0M	MPG	600m	5.0	5.0	-4.2	-2.0	90n	1.6m	50	2.5M#	0	7	F255b	ML62c
51	AM1402ADM#1	256	4	PPD	5.0M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	5	C	F255b	ML62c
52	AM1402APC#1	256	4	PPD	5.0M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	0	7	F255b	ML89a
53	AM1402A51E	256	4	PPD	10M	MPG	250m	5.0	5.0	-1.0	-2.0	90n	1.6m	50	2.5M#	5	C	F255b	ML107
54	AM1402A51F	256	4	PPD	10M	MPG	250m	5.0	5.0	-1.0	-2.0	90n	1.6m	50	2.5M#	5	C	F255b	FL33a
55	AM1402A59F#1	256	4	PPD	10M	MPG	250m	5.0	5.0	-1.0	-2.0	90n	1.6m	50	2.5M#	0	7	F255b	FL33a
56	AM2802DC	256	4	PPD	10M	MPG	600m	5.0	5.0	-4.2	-2.0	90n	1.6m	50	100	0	7	F255b	ML62c
57	AM2802DM	256	4	PPD	10M	MPG	600m	5.0	5.0	-4.2	-2.0	90n	1.6m	50	100	5	C	F255b	ML62c
58	AM2802PC	256	4	PPD	10M	MPG	600m	5.0	5.0	-4.2	-2.0	90n	1.6m	50	100	0	7	F255b	ML89a
59	HD3502	256	4	SSD	2.5M	MPG	600m	5.0	5.0	80	3.5	10k	2	7	2	F29	ML88a		
60	DL9-4256-28#1	256Δ	4	SSD	2.5M	MPG	250m	5.0	5.0	80	3.5	340n	1.6m	50	10k	0	7	F147	ML64
61	DL9-4256-69#1	256Δ	4	SSD	2.5M	MPG	250m	5.0	5.0	80	3.5	340n	1.6m	50	10k	0	7	F147	ML9
62	MM1402A	256	4	SSD	2.5M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	0	7	F140	ML10c
63	DL9-1402A26#2	256	4	SSD	3.0M	MPG	600m												

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS/REG(2) No. REGISTERS
(3) OP. CODE(4) MAX. W/C FREQ(5) STRUCT(6) TYPE No

LINE No.	6 TYPE No.	ORGANIZATION		OPER. CODE	4. MAX WORST CASE FREQ. (Hz)	5. MAX STURC TURE CODE	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MAX PROP. DELAY (s)	MIN OUTPUT SINK CURRENT		MIN CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS			
		1. BITS PER REGISTER	2. No. REGS					NEG. (V)	POS. (V)	MAX 0' (V)	MIN 1' (V)		(A)	@ OUT (V)			LOGIC/ BLOCK	OUTLINE		
1	SL9-1512-69#1	512Δ	1	SSS	2.5M	MPG	200m	5.0	5.0	80	3.5	340n	1.6m	50	0	7	F147c	ML9		
2	SL9-1512-23#2	512Δ	1	SSS	4.0M	MPG	380m	12	5.0	80	3.5	260n	1.6m	50	0	7	F147a	TO100		
3	SL9-1512-28#2	512Δ	1	SSS	4.0M	MPG	380m	12	5.0	80	3.5	260n	1.6m	50	0	7	F147c	ML64		
4	SL9-1512-69#2	512Δ	1	SSS	4.0M	MPG	380m	12	5.0	80	3.5	260n	1.6m	50	0	7	F147c	ML9		
5	AM1403A59F#2	512	2	PPD	3.0M	MPG	200m	9.0	5.0	-10	-2.0	110n	1.6m	50	1.5M#	0	7	F255a	FL33a	
6	AM1403A#2	512	2	PPD	3.0M	MPG	600m	9.0	5.0	-4.2	-2.0	110n	1.6m	50	1.5M#	0	7	F255a	TO5	
7	AM1403AHM#2	512	2	PPD	3.0M	MPG	600m	9.0	5.0	80	3.0	110n	1.6m	50	100	5	C	F255a	TO99	
8	AM1403APC#2	512	2	PPD	3.0M	MPG	600m	9.0	5.0	80	3.0	110n	1.6m	50	100	0	7	F255a	ML89a	
9	1403A	512	2	PPD	5.0M	MPG	500m	5.0	5.0	50	2.4	100n	1.6m	50	5	C	F255a	CY12		
10	AM1403A#1	512	2	PPD	5.0M	MPG	600m	5.0	5.0	-4.2	-2.0	90n	1.6m	50	2.5M#	0	7	F255a	TO5	
11	AM1403AHM#1	512	2	PPD	5.0M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	5	C	F255a	TO99	
12	AM1403APC#1	512	2	PPD	5.0M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	0	7	F255a	ML89a	
13	AM1403A51F	512	2	PPD	10M	MPG	250m	5.0	5.0	-10	-2.0	90n	1.6m	50	2.5M#	5	C	F255a	FL33a	
14	AM1403A51T	512	2	PPD	10M	MPG	250m	5.0	5.0	-10	-2.0	90n	1.6m	50	2.5M#	5	C	F255a	TO5	
15	AM1403A59F#1	512	2	PPD	10M	MPG	250m	5.0	5.0	-10	-2.0	90n	1.6m	50	2.5M#	0	7	F255a	FL33a	
16	AM2803HC	512	2	PPD	10M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	0	7	F255a	TO99	
17	AM2803HM	512	2	PPD	10M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	5	C	F255a	TO99	
18	AM2803PC	512	2	PPD	10M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	0	7	F255a	ML89a	
19	HD3503	512	2	SSD	2.5M	MPG	600m	5.0	5.0	80	3.5	340n	1.6m	50	10k	2	7	F29a	ML90a	
20	MM1405A	512Δ	2	SSD	2.0M	MPG	600m	5.0	5.0	80	3.0	250n	1.6m	50	200	0	7	F30	TO100	
21	DL9-2512-23#1	512Δ	2	SSD	2.5M	MPG	250m	5.0	5.0	80	3.5	340n	1.6m	50	10k	0	7	F147b	TO100	
22	DL9-2512-28#1	512Δ	2	SSD	2.5M	MPG	250m	5.0	5.0	80	3.5	340n	1.6m	50	10k	0	7	F147d	ML64	
23	DL9-2512-69#1	512Δ	2	SSD	2.5M	MPG	250m	5.0	5.0	80	3.5	340n	1.6m	50	10k	0	7	F147d	ML9	
24	MM1403A	512	2	SSD	2.5M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	0	7	F133	TO99	
25	MM4017D	512S	2	SSD	2.5M	MPX	238m	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F225	ML12	
26	MM4017H	512S	2	SSD	2.5M	MPX	238m	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F224	TO100	
27	MM4017N	512S	2	SSD	2.5M	MPX	238m	12	5.0	80	3.0	200n	1.6m	40	10k	5	C	F225	ML2e	
28	MM5017D	512S	2	SSD	2.5M	MPX	238m	12	5.0	80	3.0	200n	1.6m	40	10k	2	7	F225	ML12	
29	MM5017H	512S	2	SSD	2.5M	MPX	238m	12	5.0	80	3.0	200n	1.6m	40	10k	2	7	F224	TO100	
30	MM5017N	512S	2	SSD	2.5M	MPX	238m	12	5.0	80	3.0	200n	1.6m	40	10k	2	7	F225	ML2e	
31	DL9-1403A15#2	512	2	SSD	3.0M	MPG	600m	9.0	5.0	80	3.0	110n	1.6m	50	10k	0	7	F120a	TO99	
32	DL9-1403A26#2	512	2	SSD	3.0M	MPG	600m	9.0	5.0	80	3.0	110n	1.6m	50	10k	0	7	F120c	ML12	
33	DL9-1403A55#2	512	2	SSD	3.0M	MPG	600m	9.0	5.0	80	3.0	110n	1.6m	50	10k	0	7	F120c	ML65	
34	DL9-2512-23#2	512Δ	2	SSD	4.0M	MPG	440m	12	5.0	80	3.5	260n	1.6m	50	10k	0	7	F147b	TO100	
35	DL9-2512-28#2	512Δ	2	SSD	4.0M	MPG	440m	12	5.0	80	3.5	260n	1.6m	50	10k	0	7	F147d	ML64	
36	DL9-2512-69#2	512Δ	2	SSD	4.0M	MPG	440m	12	5.0	80	3.5	260n	1.6m	50	10k	0	7	F147d	ML9	
37	DL9-1403A15#1	512	2	SSD	5.0M	MPG	525m	5.0	5.0	80	3.0	90n	1.6m	50	10k	0	7	F120a	TO99	
38	DL9-1403A26#1	512	2	SSD	5.0M	MPG	525m	5.0	5.0	80	3.0	90n	1.6m	50	10k	0	7	F120c	ML12	
39	DL9-1403A55#1	512	2	SSD	5.0M	MPG	525m	5.0	5.0	80	3.0	90n	1.6m	50	10k	0	7	F120c	ML65	
40	M136T1	512	2	SSD	5.0M	MPG	500m	5.0	5.0	80	3.3	60n	1.6m	50	100	1	0	7	F29a	TO99
41	M1403A	512	2	SSD	5.0M	MPG	500m	5.0	5.0	80	3.0	90n	1.6m	50	10k	0	7	F133	CY4f	
42	MF1403A#1	512	2	SSD	5.0M	MPG	600m	5.0	5.0	80	3.0	110n	1.6m	50	10k	0	8	F29a	TO99	
43	MF1403A#2	512	2	SSD	5.0M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	10k	0	7	F29a	ML87	
44	MM1403AH	512	2	SSD	5.0M	MPG	610m	5.0	5.0	80	3.3	90n	1.6m	50	300	2	7	F133	CY3	
45	P1403A	512	2	SSD	5.0M	MPG	500m	5.0	5.0	80	3.0	90n	1.6m	50	10k	0	7	F134c	ML116a	
46	2503TA	512	2	SSD	8.0M	MPG	535m	5.0	5.0	1.0	3.2	90n	1.6m	50	500	0	7	F29a	CY3d	
47	2503V	512	2	SSD	8.0M	MPG	535m	5.0	5.0	1.0	3.2	90n	1.6m	50	500	0	7	F29a	ML87	
48	MF7111A	512	4	SSD	2.0M	MNG	800m	0.0	5.0	80	2.0	200n	4.0m	40	10k	0	7	F29a	ML2a	
49	MF7111	512	4	SSD	8.0M	MNG	800m	1.25	5.0	80	2.0	200n	4.0m	40	1.0k	0	7	F255	ML2a	
50	AM1404A#2	1024	1	PPD	3.0M	MPG	600m	9.0	5.0	-4.2	-2.0	110n	1.6m	50	1.5M#	0	7	F255	TO5	
51	AM1404AHM#2	1024	1	PPD	3.0M	MPG	600m	9.0	5.0	80	3.0	110n	1.6m	50	100	5	C	F255	TO99	
52	AM1404APC#2	1024	1	PPD	3.0M	MPG	600m	9.0	5.0	80	3.0	110n	1.6m	50	100	0	7	F255	ML89a	
53	1404A	1024	1	PPD	5.0M	MPG	500m	5.0	5.0	50	2.4	100n	1.6m	50	2.5M#	0	7	F255	CY12	
54	AM1404A#1	1024	1	PPD	5.0M	MPG	600m	5.0	5.0	-4.2	-2.0	90n	1.6m	50	2.5M#	0	7	F255	TO5	
55	AM1404AHM#1	1024	1	PPD	5.0M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	5	C	F255	TO99	
56	AM1404APC#1	1024	1	PPD	5.0M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	0	7	F255	ML89a	
57	AM2804HC	1024	1	PPD	10M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	0	7	F255	TO99	
58	AM2804HM	1024	1	PPD	10M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	5	C	F255	TO99	
59	AM2804PC	1024	1	PPD	10M	MPG	600m	5.0	5.0	80	3.0	90n	1.6m	50	100	0	7	F255	ML89a	
60	HD3504	1024	1	SSD	2.5M	MPG														

IN ORDER OF (1) No. BITS/REG (2) No. REGISTERS
(3) OP. CODE (4) MAX W/C FREQ (5) STRUCT (6) TYPE No

46 **D.A.T.A.** SYMBOLS AND CODES EXPLAINED IN INTERPRETER 46

8. TYPES WITH U.S. MILITARY SPECIFICATIONS

IN TYPE NUMBER
SEQUENCE

TYPE No.	MFRS	MILM 38510/	TYPE No.	MFRS	MILM 38510/	TYPE No.	MFRS	MILM 38510/	TYPE No.	MFRS	MILM 38510/	TYPE No.	MFRS	MILM 38510/
M38510/00901AAA	none	9A AMEND 1	M38510/00901STD	none	9B AMEND 1	M38510/00903BBA	none	9A AMEND 1	M38510/00904CEB	none	9A AMEND 1	M38510/00906CEB	none	9A AMEND 1
M38510/00901AAB	none	9A AMEND 1	M38510/00902AEA	none	9A AMEND 1	M38510/00903BBB	none	9A AMEND 1	M38510/00904CEC	none	9A AMEND 1	M38510/00906CEC	none	9A AMEND 1
M38510/00901AAC	none	9A AMEND 1	M38510/00902AEB	none	9A AMEND 1	M38510/00903BBC	none	9A AMEND 1	M38510/00904CFA	none	9A AMEND 1	M38510/00906CFA	none	9A AMEND 1
M38510/00901ABA	none	9A AMEND 1	M38510/00902AEC	none	9A AMEND 1	M38510/00903BCA	none	9A AMEND 1	M38510/00904CFB	none	9A AMEND 1	M38510/00906CFB	none	9A AMEND 1
M38510/00901ABB	none	9A AMEND 1	M38510/00902AFA	none	9A AMEND 1	M38510/00903BCB	none	9A AMEND 1	M38510/00904CFC	none	9A AMEND 1	M38510/00906CFC	none	9A AMEND 1
M38510/00901ABC	none	9A AMEND 1	M38510/00902AFB	none	9A AMEND 1	M38510/00903BCC	none	9A AMEND 1	M38510/00905AEA	none	9A AMEND 1	M38510/02801AAA	none	28 USAF
M38510/00901ACA	none	9A AMEND 1	M38510/00902AFC	none	9A AMEND 1	M38510/00903BDA	none	9A AMEND 1	M38510/00905AEB	none	9A AMEND 1	M38510/02801AAB	none	28 USAF
M38510/00901ACB	none	9A AMEND 1	M38510/00902BEA	none	9A AMEND 1	M38510/00903BDB	none	9A AMEND 1	M38510/00905AEC	none	9A AMEND 1	M38510/02801AAC	none	28 USAF
M38510/00901ACC	none	9A AMEND 1	M38510/00902BEB	ITT SIC	9A AMEND 1	M38510/00903BDC	none	9A AMEND 1	M38510/00905AFA	none	9A AMEND 1	M38510/02801ABA	none	28 USAF
M38510/00901ADA	none	9A AMEND 1	M38510/00902BEC	ITT SIC	9A AMEND 1	M38510/00903CAA	none	9A AMEND 1	M38510/00905AFB	none	9A AMEND 1	M38510/02801ABB	none	28 USAF
M38510/00901ADB	none	9A AMEND 1	M38510/00902BFA	none	9A AMEND 1	M38510/00903CAB	none	9A AMEND 1	M38510/00905AFC	none	9A AMEND 1	M38510/02801ABC	none	28 USAF
M38510/00901ADC	none	9A AMEND 1	M38510/00902BFB	SIC	9A AMEND 1	M38510/00903CAC	none	9A AMEND 1	M38510/00905BEA	none	9A AMEND 1	M38510/02801ACA	none	28 USAF
M38510/00901BAA	none	9A AMEND 1	M38510/00902BFC	SIC	9A AMEND 1	M38510/00903CBA	none	9A AMEND 1	M38510/00905BEB	none	9A AMEND 1	M38510/02801ACB	none	28 USAF
M38510/00901BAB	none	9A AMEND 1	M38510/00902CEA	none	9A AMEND 1	M38510/00903CBB	none	9A AMEND 1	M38510/00905BFA	none	9A AMEND 1	M38510/02801ACC	none	28 USAF
M38510/00901BAC	none	9A AMEND 1	M38510/00902CEB	ITT SIC	9A AMEND 1	M38510/00903CBC	none	9A AMEND 1	M38510/00905BFB	none	9A AMEND 1	M38510/02801ADA	none	28 USAF
M38510/00901BBA	none	9A AMEND 1	M38510/00902CEC	ITT SIC	9A AMEND 1	M38510/00903CCA	none	9A AMEND 1	M38510/00905BFC	none	9A AMEND 1	M38510/02801ADB	none	28 USAF
M38510/00901BBB	none	9A AMEND 1	M38510/00902CFA	none	9A AMEND 1	M38510/00903CCB	none	9A AMEND 1	M38510/00905CEA	none	9A AMEND 1	M38510/02801ADC	none	28 USAF
M38510/00901BBC	none	9A AMEND 1	M38510/00902CFB	SIC	9A AMEND 1	M38510/00903CCC	none	9A AMEND 1	M38510/00905CEB	none	9A AMEND 1	M38510/02801ADA	none	28 USAF
M38510/00901BCA	none	9A AMEND 1	M38510/00902CFC	SIC	9A AMEND 1	M38510/00903CDA	none	9A AMEND 1	M38510/00905CEC	none	9A AMEND 1	M38510/02801ADB	none	28 USAF
M38510/00901BCB	SIC	9A AMEND 1	M38510/00903AAA	none	9A AMEND 1	M38510/00903CDB	none	9A AMEND 1	M38510/00905CFA	none	9A AMEND 1	M38510/02801ADC	none	28 USAF
M38510/00901BCC	SIC	9A AMEND 1	M38510/00903AAB	none	9A AMEND 1	M38510/00903CDC	none	9A AMEND 1	M38510/00905CFB	none	9A AMEND 1	M38510/02801ADA	none	28 USAF
M38510/00901BDA	none	9A AMEND 1	M38510/00903AAC	none	9A AMEND 1	M38510/00904AEA	none	9A AMEND 1	M38510/00905CFC	none	9A AMEND 1	M38510/02801ADB	none	28 USAF
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M38510/00901CAB	none	9A AMEND 1	M38510/00903ACA	none	9A AMEND 1	M38510/00904AFB	none	9A AMEND 1	M38510/00905CFA	none	9A AMEND 1	M38510/02801ADC	none	28 USAF
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IN TYPE NUMBER
SEQUENCE

48

Ø — For Military Specification See MIL—M—0038510

8. TYPES WITH U.S. MILITARY SPECIFICATIONS

IN TYPE NUMBER
SEQUENCE

TYPE No.	MFRS	MIL-M 38510/	TYPE No.	MFRS	MIL-S 38510/	TYPE No.	MFRS	MIL-S 38510/	TYPE No.	MFRS	MIL-S 38510/	TYPE No.	MFRS	MIL-S 38510/
M38510/20102BZA	none	201 AMEND 1												
		USAF												
M38510/20102BZB	none	201 AMEND 1												
		USAF												
M38510/20102BZC	none	201 AMEND 1												
		USAF												
M38510/20102CJA	none	201 AMEND 1												
		USAF												
M38510/20102CJB	none	201 AMEND 1												
		USAF												
M38510/20102CJC	none	201 AMEND 1												
		USAF												
M38510/20102CKA	none	201 AMEND 1												
		USAF												
M38510/20102CKB	none	201 AMEND 1												
		USAF												
M38510/20102CKC	none	201 AMEND 1												
		USAF												
M38510/20102CZA	none	201 AMEND 1												
		USAF												
M38510/20102CZB	none	201 AMEND 1												
		USAF												
M38510/20102CZC	none	201 AMEND												

MILITARY DOCUMENTS

Department of Defense Index of Specifications
and Standards dated 1 July 1972,
Supplement dated 1 May 1973.

Device Manufacturers Qualifications on Test
Reference Letter.

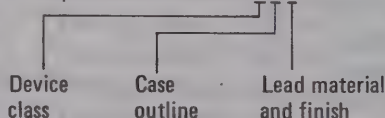
MIL-M-0038510B (USAF) Military Specification,
General Specification for Microcircuits,
dated 1 October 1973, Supplement 1
dated 15 October 1973, used in lieu of
MIL-M-38510A Military Specification,
dated 3 July 1972, Supplement 1C, dated
3 February 1974, and Amendment 2,
dated 10 July 1974.

QPL-38510-17 Qualified Products List (Part I) of
Products Qualified Under Military Specification MIL-M-38510, dated November 1974.
Qualified Products List (Part 11) of Products
Qualified Under Military Specification
Mil-m-38510, dated November 1974.
These products are considered qualified
products. Therefore, manufacturers listed
on QPL-38510 shall "JAN" mark and ship
the specific part numbered devices for which
they are listed, providing all required quality
conformance inspections have been successfully
completed. They have not been subjected
to all the tests required for qualification under
the latest effective issue of MIL-M-38510;
however, the manufacturers have performed sufficient
similar tests to indicate that the products
have the potential of complying with the
MIL-M-38510 requirements.

MIL-STD-883 Military Standard; Test Methods and
Procedures for Microelectronics, dated
1 May 1968, Notice 4, dated 31 August 1972.

NOTE: The 3-letter suffix at the end of the type
number represents device class (degree of quality
assurance testing), case outline and lead material
finish as shown below.

Example: M38510/00901XXX



SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

DRAWING PREFIX ASSIGNMENTS FOR SECTIONS 9 & 10

LOGIC/BLOCK DRAWINGS

- A: RAMs
- B: ROMs
- C: Character Generators
- D: CAMs
- E: Code Converters
- F: Shift Registers

OUTLINE DRAWINGS

- CY: TO-5 type (non-JEDEC)
- FL: Flat package (non-JEDEC)
- ML: Molded or encapsulated package not included in other categories.
- MO: Standard JEDEC outline
- PL: Printed circuit board
- TO: Standard JEDEC outline

□ : Package style only shown; no dimensions.

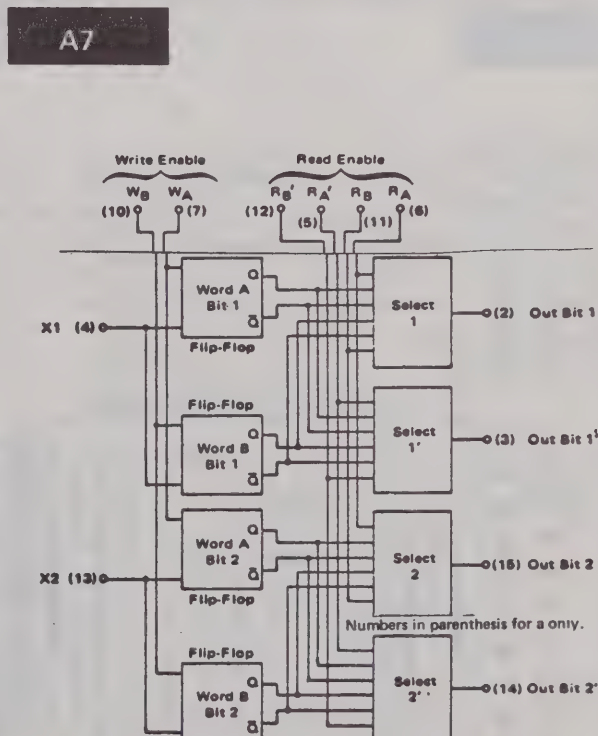
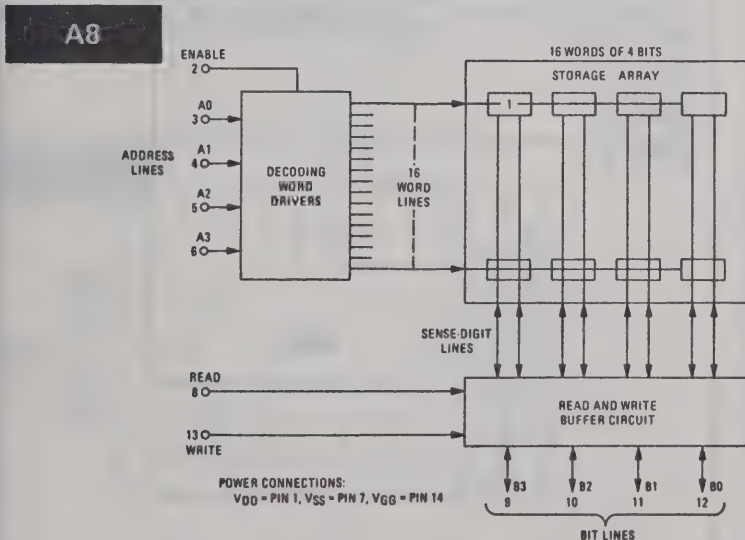
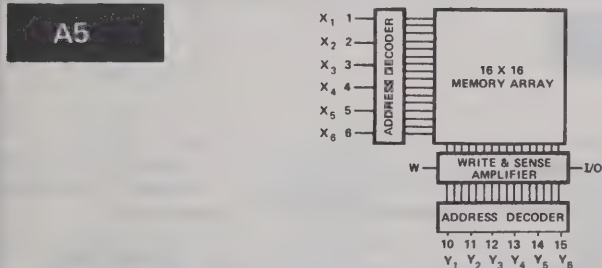
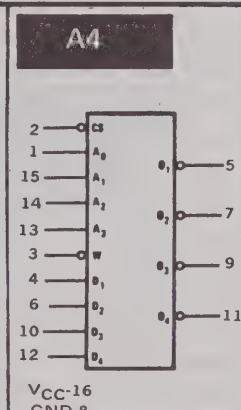
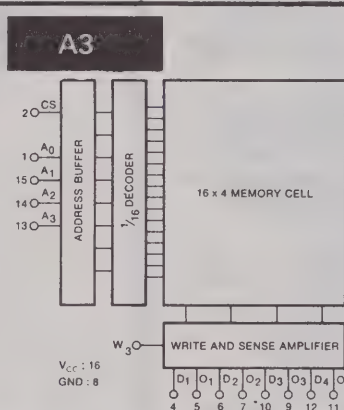
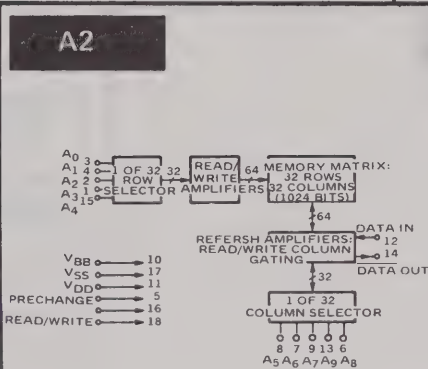
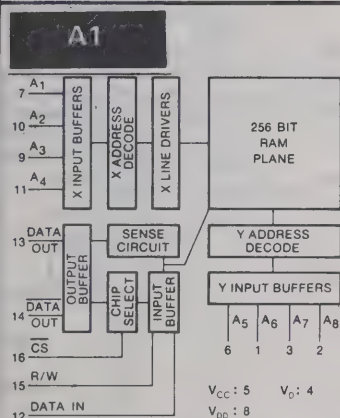
NOTES

These outline drawings are intended as a guide for the user. They should not be used for construction purposes without first checking with the appropriate manufacturer.

These drawings are referenced in the Technical Sections of this D.A.T.A.BOOK in accordance with information supplied by the manufacturers.

The DO and TO drawings have been reproduced from JEDEC Registration Data Files with the permission of the National Electrical Manufacturer's Association — Electronic Industries Association. JEDEC designations are assigned only to outlines submitted by the JC-11 Committee on Mechanical Standardization. The procedure of assigning and announcing the JEDEC designation constitutes registration.

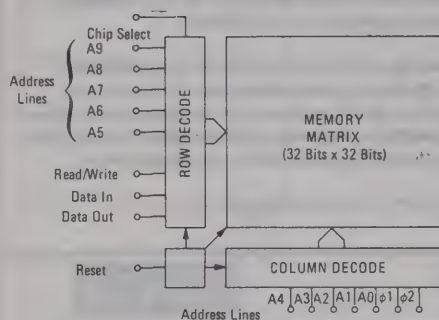
All drawings have circular symmetry unless otherwise indicated.



SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

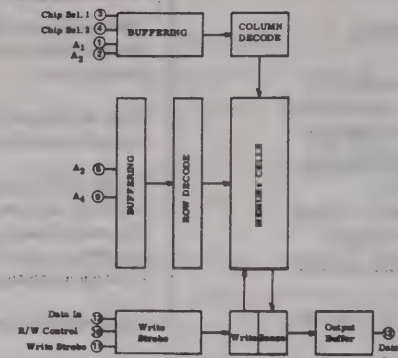
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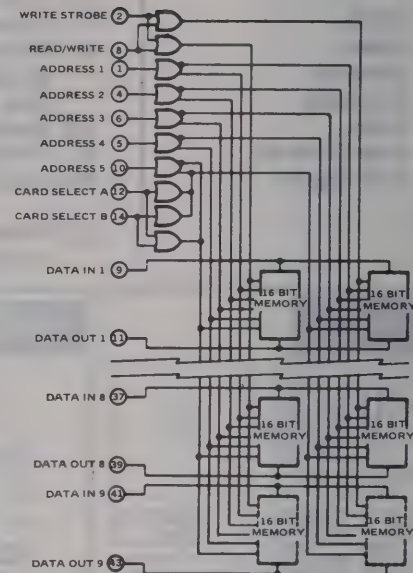
A											
1	2	3	4	5	6	7	8	9	0	phi1	phi2
A9	22	21	20	19	17	16	13	12	11	23	5
A8	20	19	18	17	15	14	12	11	10	21	4

DATA IN/OUT	R/W	CHIP SELECT	VDD	VSS	VSY
7 8	24 6	10	18	3	1
7 8	22 6	19	16	2	1

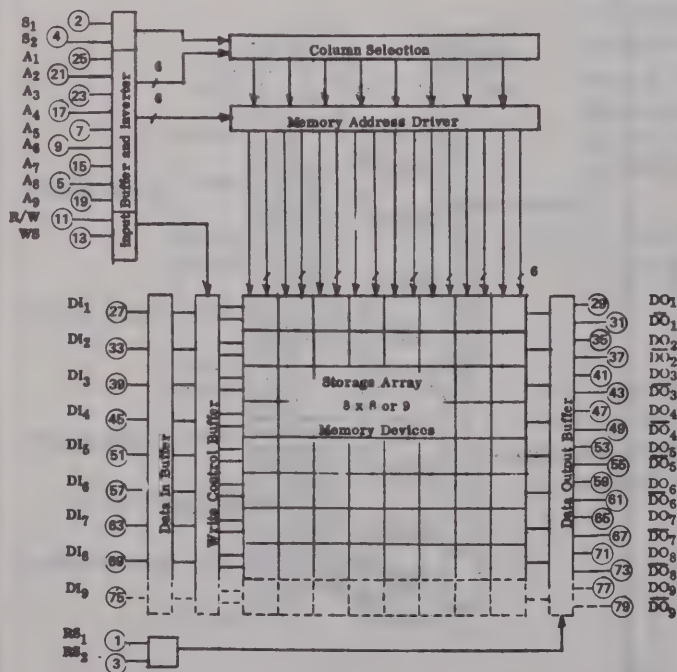
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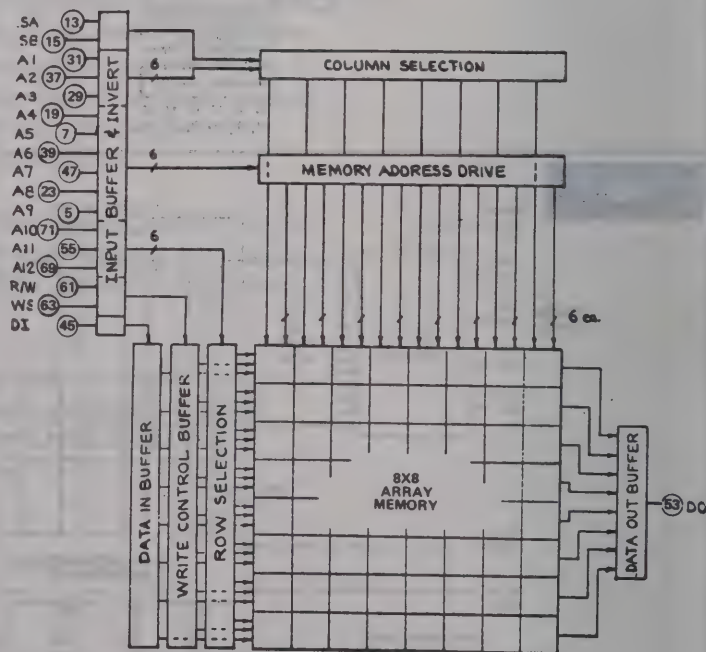
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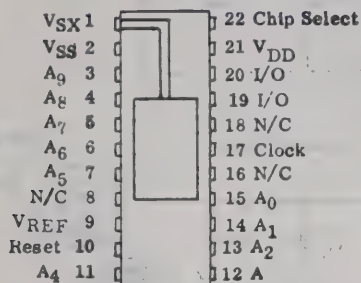
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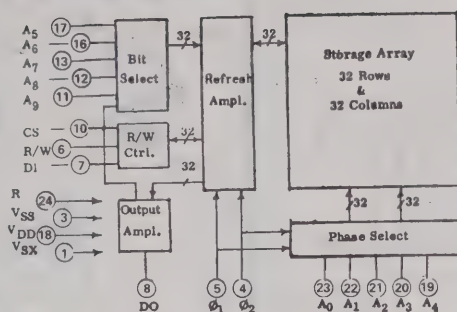
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

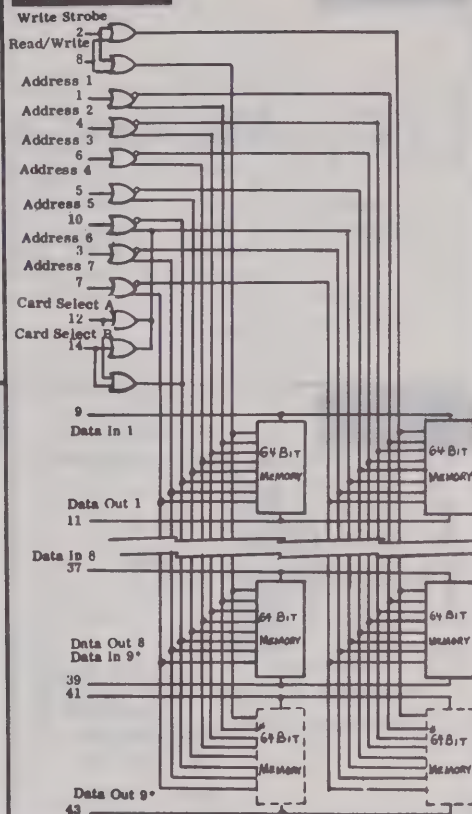
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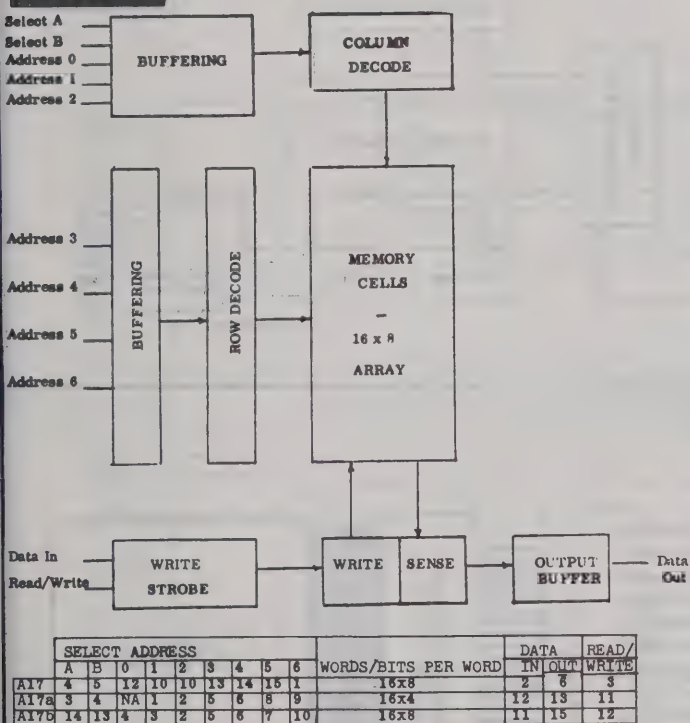
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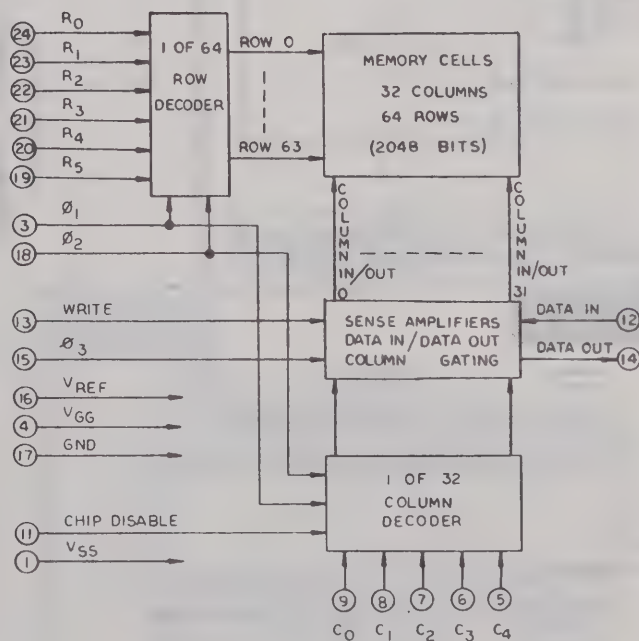
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A17



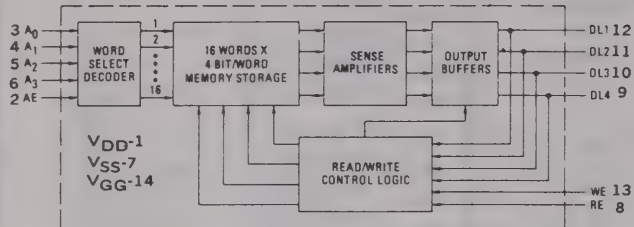
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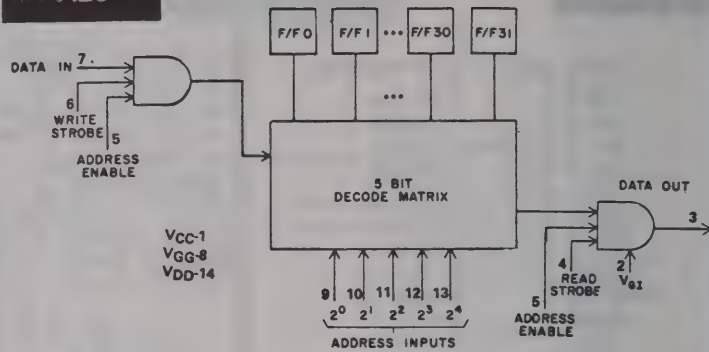
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SEQUENCE

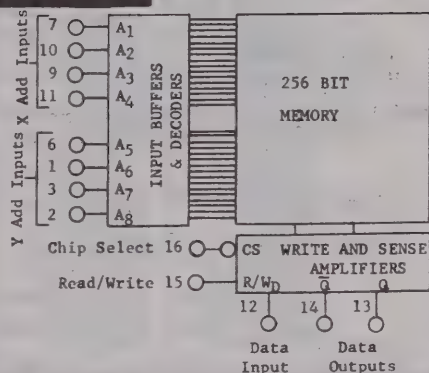
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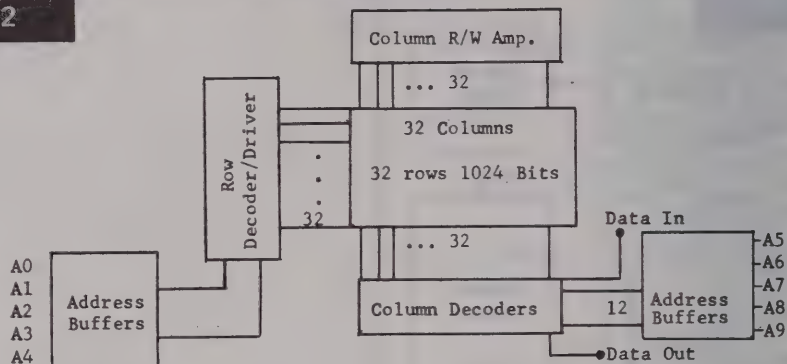
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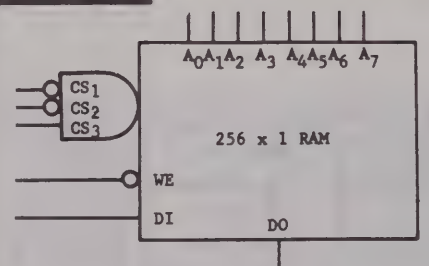
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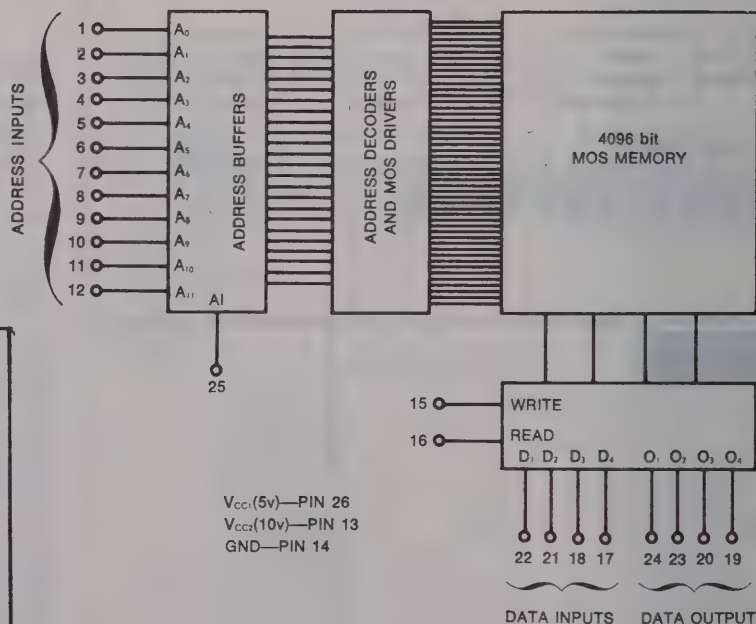


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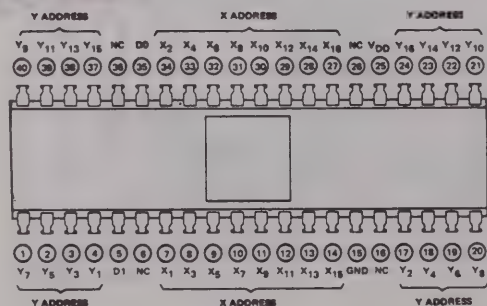
	A															CS								
	0	1	2	3	4	5	6	7	1	2	3		WE	DI	DO	VCC	GND							
A24	12	13	14	15	1	2	3	4	5	6	7	10	9	11	16	8								
A24a	1	2	3	4	12	13	14	15	5	6	7	10	9	11	16	8								

A25



V_{CC}(5v)—PIN 26
V_{CC}(10v)—PIN 13
GND—PIN 14

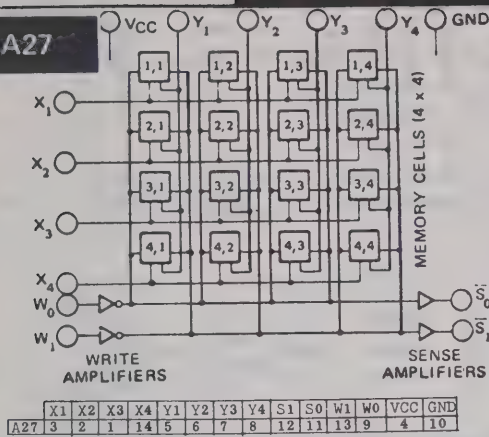
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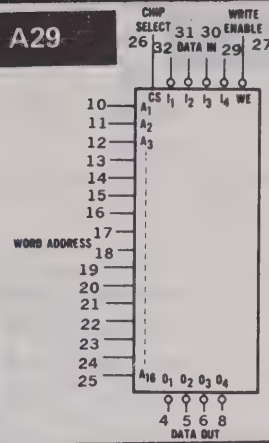
SECTION 9. LOGIC/BLOCK DRAWINGS

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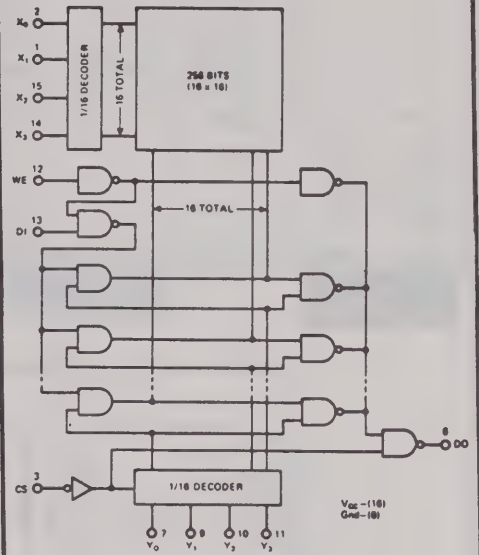
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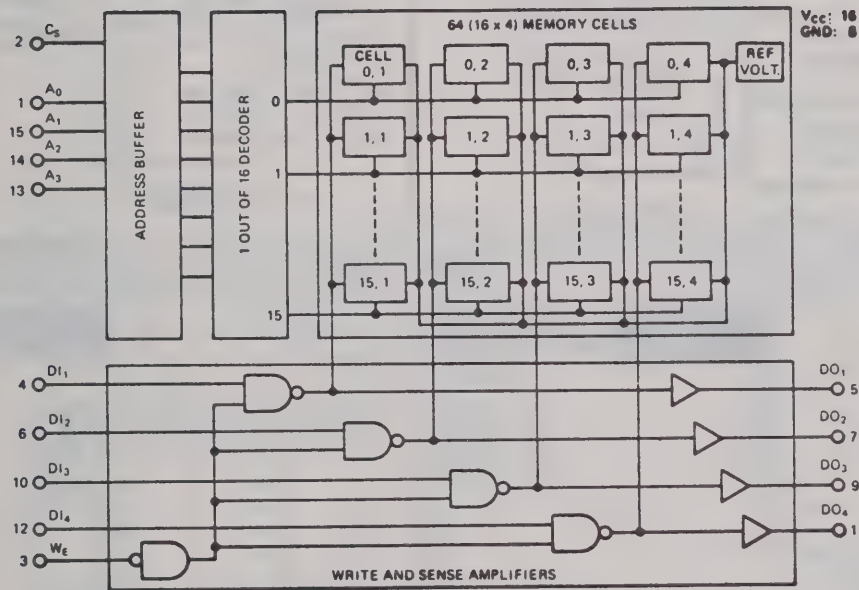
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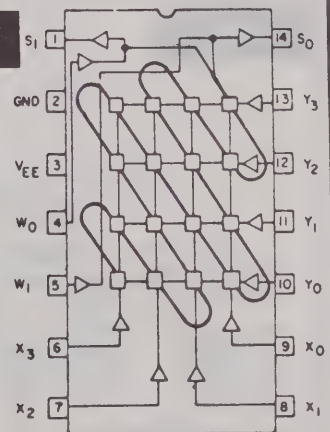
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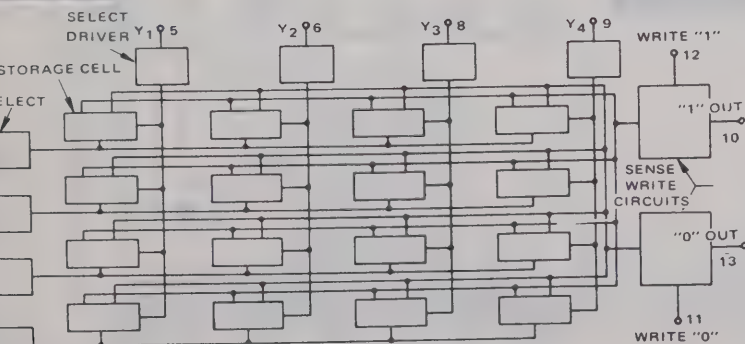
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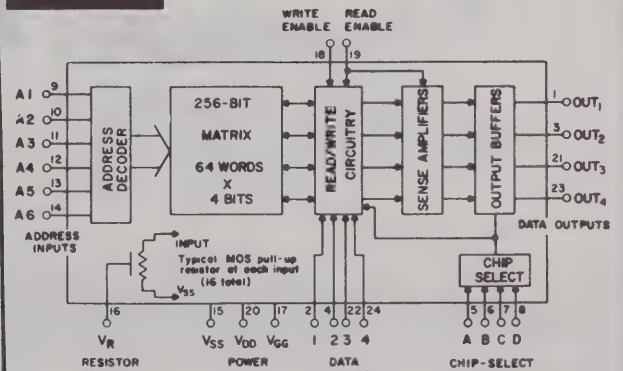
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A32

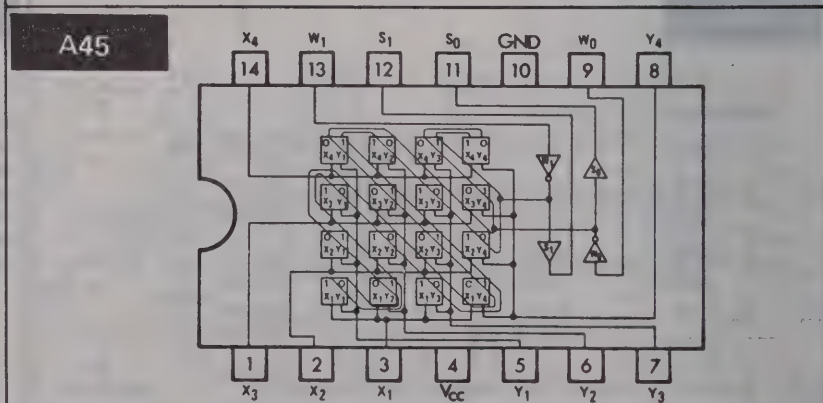
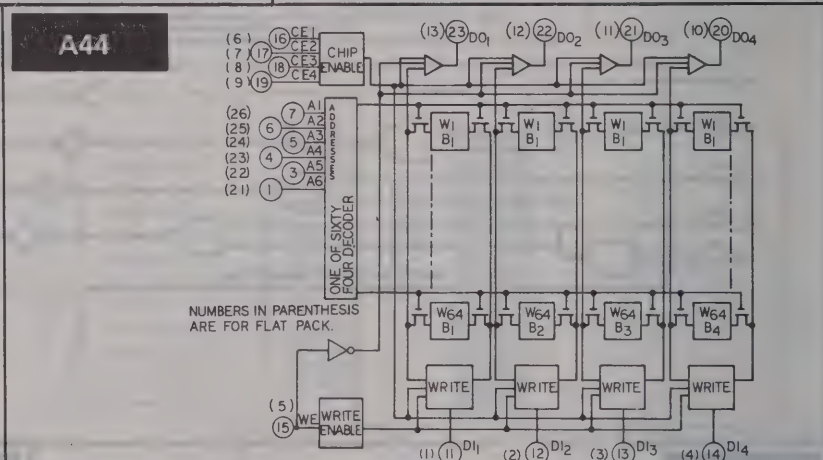
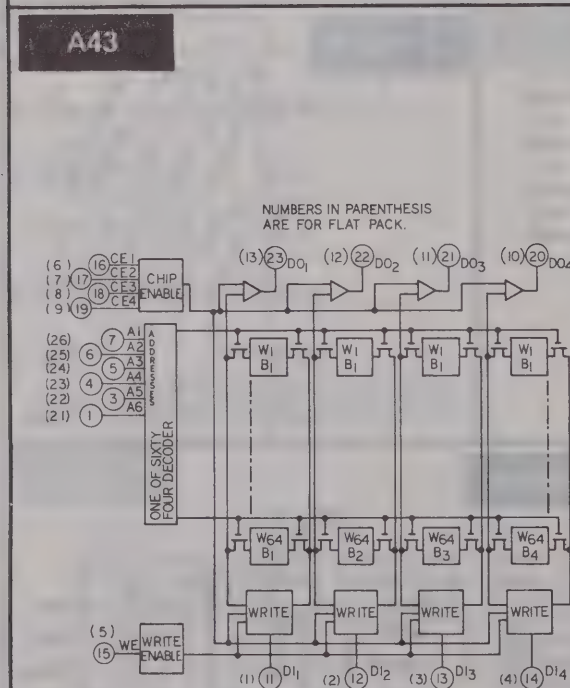
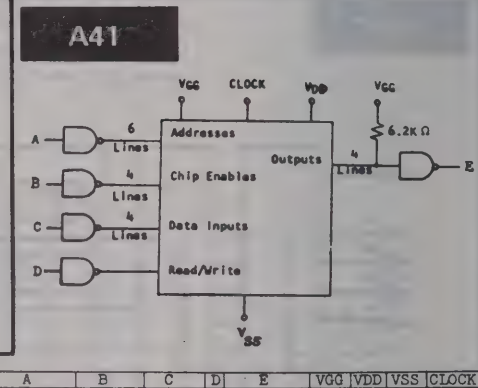
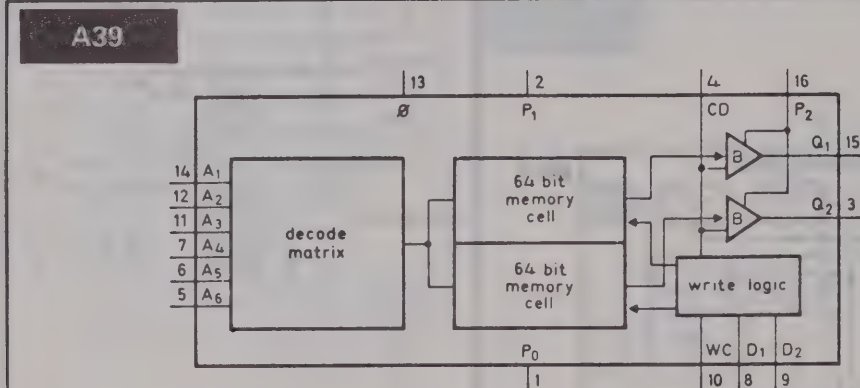
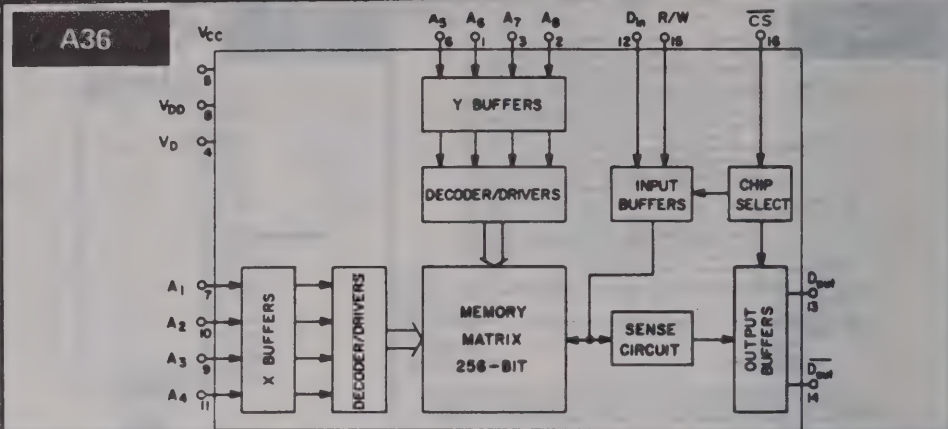
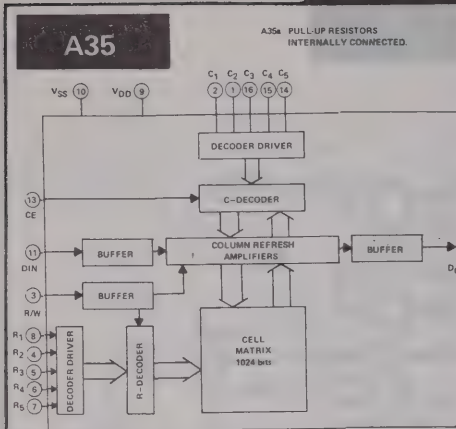


A34



SECTION 9. LOGIC/BLOCK DRAWINGS

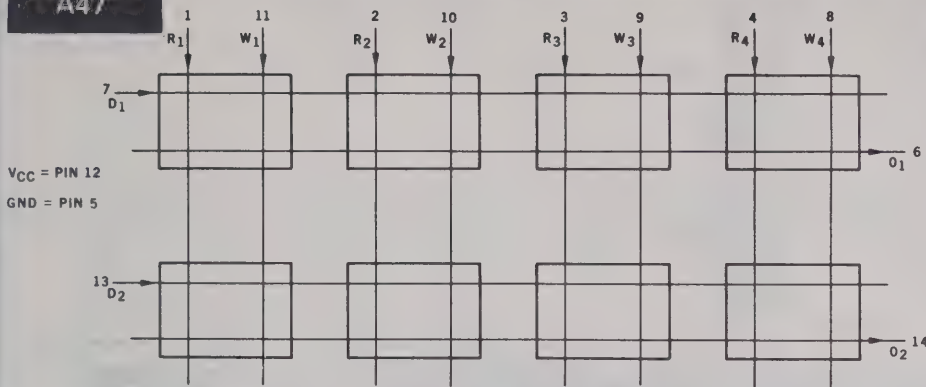
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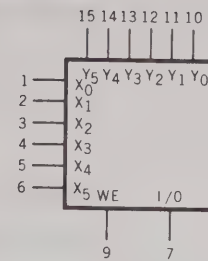
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
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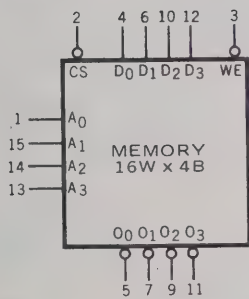


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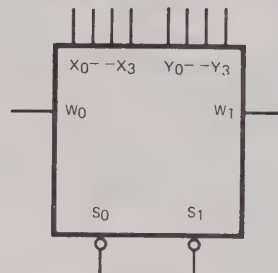


A51

V_{CC} = PIN 16
GND = PIN 8

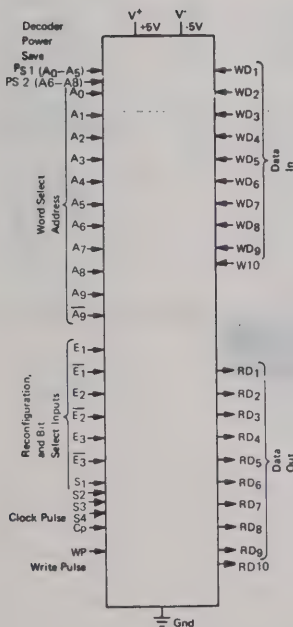


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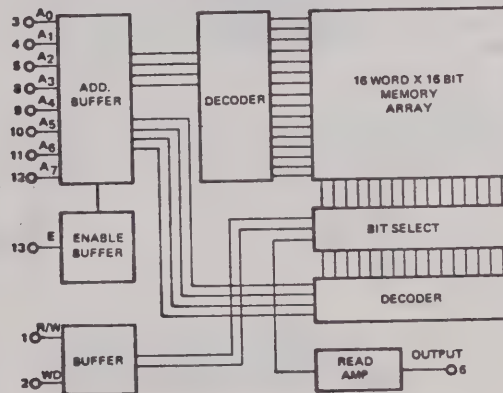


	X0	X1	X2	X3	Y0	Y1	Y2	Y3	W0	W1	S0	S1	VCC	GND
A52	5	6	7	8	14	1	2	3	9	13	11	12	4	10
A52a	1	2	3	4	13	12	11	10	9	5	8	6	14	7

A58



A54



	PS	A										E										S										RD										WD										GND										V+	V-																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
	1	2	0	1	2	3	4	5	6	7	8	9	9	1	1	2	3	3	3	3	3	4	4	CP	WP	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	

IN DRAWING NUMBER
SEQUENCE

The diagram shows the 68000 microprocessor with the following pins:

- Top:** V+ (+5V), V- (-5V)
- Left Side (Inputs):**
 - DECODER P0WERSAVE BUFFERED: P_{S1}, P_{S2}
 - WORD SELECT ADDRESS: A₀, A₁, A₂, A₃, A₄, A₅, A₆
 - CARD ENABLE BUFFERED: E/I₁, E/I₂
 - CLOCK PULSE BUFFERED: Cp₁, Cp₂
 - WRITE PULSE BUFFERED: WP₁, WP₂
- Right Side (Outputs):**
 - DATA IN: WD₁ through WD₁₆
 - DATA OUT: RD₁ through RD₁₆
- Bottom:** GND

	PS								A								E/I		CF	WF	RD																MD																V+	V-	GND	
	1	2	0	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16													
A59	21	28	23	27	33	39	40	37	35	38	34	30	31	36	29	32	24	56	57	53	54	45	50	7	9	17	19	11	15			55	58	51	52	46	49	8	10	12	16			59	60	1,2	13	14	25	26	27	48				
A59a	21	28	23	27	33	39	40	37	35	38	34	30	31	36	29	32	24	56	57	53	54	45	50	7	9	17	19	11	15	41	43	3	5	55	58	51	52	46	49	8	10	12	16	42	44	4	6	59	60	1,2	13	14	25	26	27	48

	X				Y				S		W	
	0	1	2	3	0	1	2	3	0	1	0	1
A60	1	2	3	4	13	12	11	10	8	6	9	5
A60a	9	8	7	6	10	11	12	13	14	1	4	5

[illegible]

The block diagram illustrates the 68000 microprocessor system. The 68000 microprocessor (A62a) is connected to an X ADDRESS DECODE block, a 32x32 MEMORY ARRAY, REFRESH AMPLIFIERS, and a Y ADDRESS DECODE block. The microprocessor has pins A0-A4, A62a-PIN 3, A62a-PIN 4, PRE, BB, DD, VSS, and CEN. The X ADDRESS DECODE block has inputs 1W, 1R, 32W, 32R, and 1R/W. The 32x32 MEMORY ARRAY has inputs 1, 32, 1, and 32. The REFRESH AMPLIFIERS have inputs 12 D1, 17 VSS, and 14 D0. The Y ADDRESS DECODE block has inputs 8, 7, 9, 13, 6, A5, A6, A7, A8, and A9.

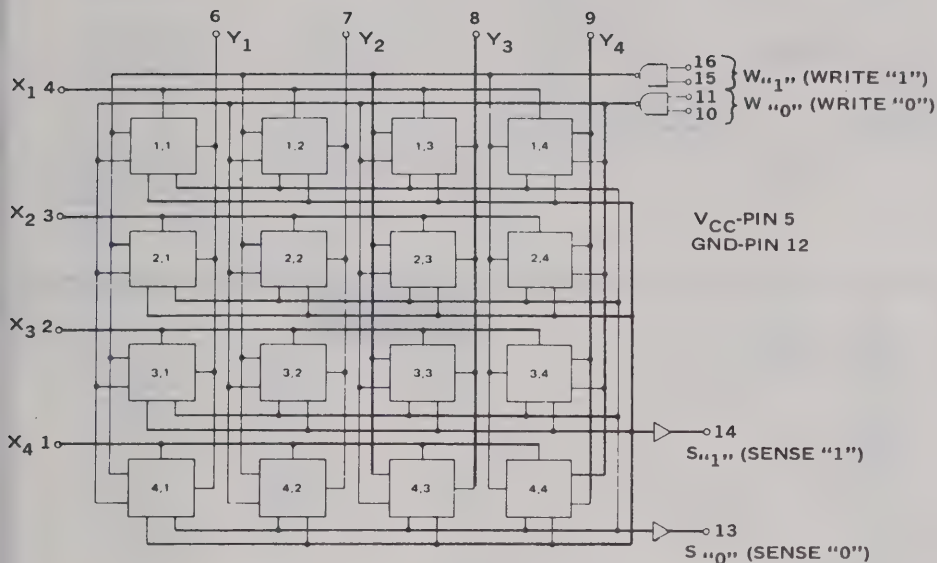
The block diagram illustrates the internal architecture of the 16K16B16 microcontroller. It features a central **16 x 16 MEMORY ARRAY**. Above the array is a **WRITE AND SENSE AMPLIFIERS** block, which is connected to the array's output lines. This block has a **DOUT** output and is controlled by **CS₁**, **CS₂**, and **CS₃** inputs. Above the amplifiers is a **1/16 DECODER ADDRESS BUFFERS AND INVERTERS** block, which receives **A₀**, **A₁**, **A₂**, and **A₃** address inputs. This decoder block has four outputs labeled **2**, **1**, **15**, and **14**. To the right of the memory array is another **1/16 DECODER ADDRESS BUFFERS & INVERTERS** block, which is connected to the array's input lines and has a **DATA INPUT AND WRITE** control input. Power supply connections are indicated as **16 = VCC** and **8 = GND**.

The block diagram shows two main components: a 64-word 1-bit storage array and a control block. The storage array has 13 address inputs labeled A0 through A5 and V_{in}, which are grouped under the label 'ADDRESS INPUTS'. It has two outputs: a 10-bit output V_{out} and a 9-bit read/write (R/W) control signal. The control block has three inputs: Strobe, CE1, and CE2. It is connected to the storage array and provides the R/W control signal.

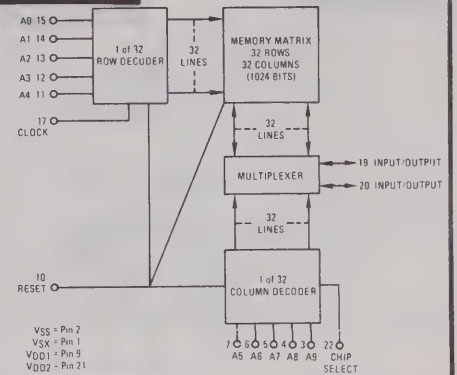
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

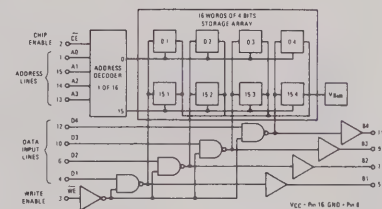
A67



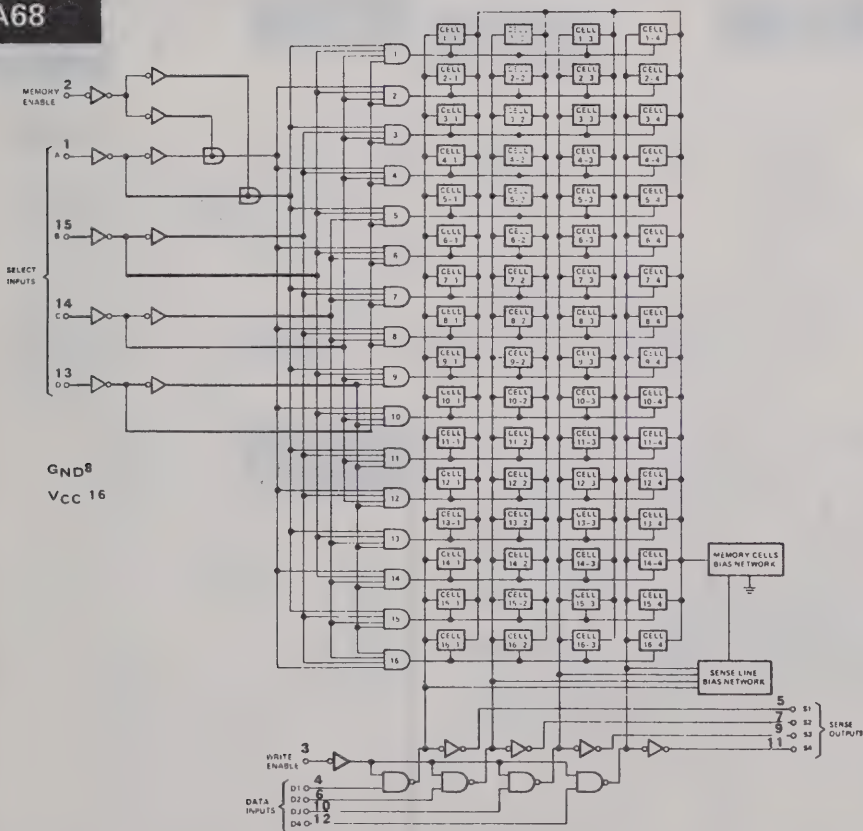
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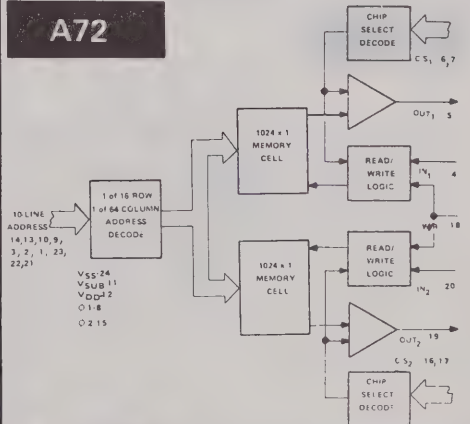
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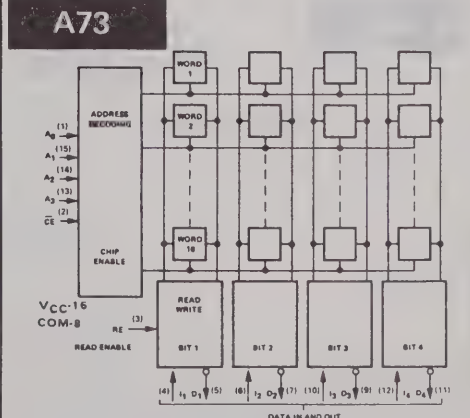
A68



A72



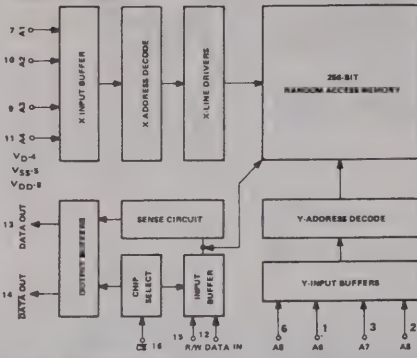
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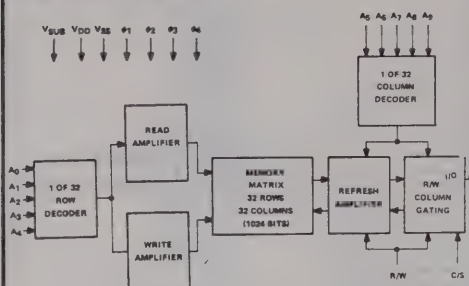
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

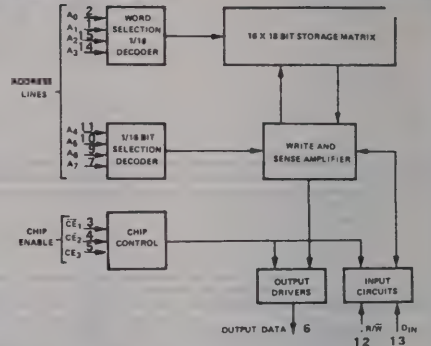
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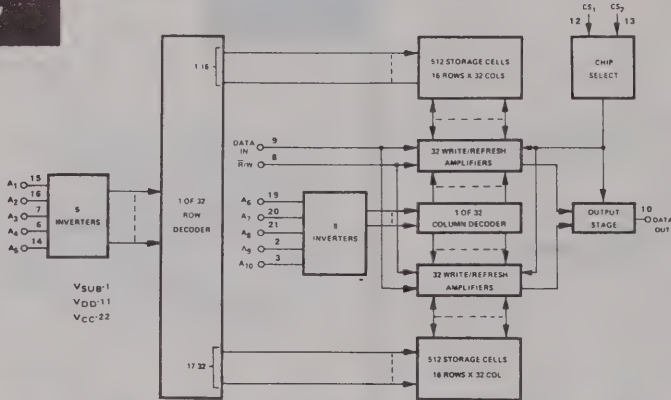
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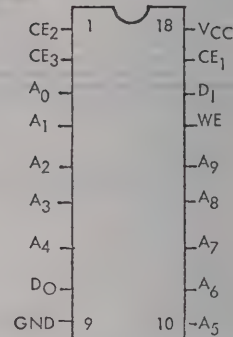
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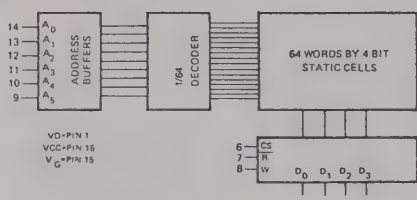
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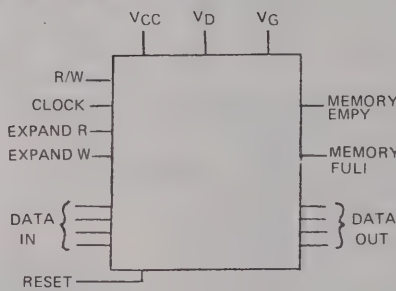
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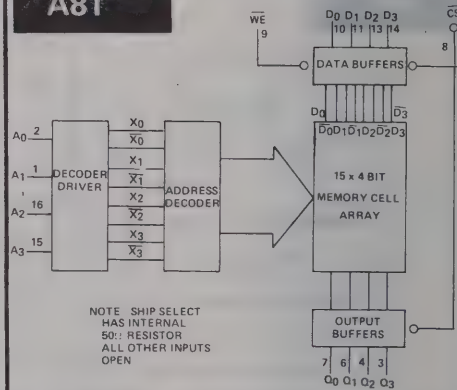
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A80

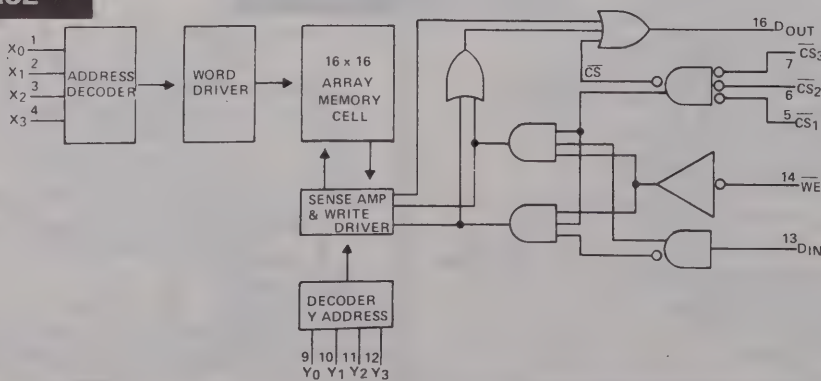


A81



NOTE: CHIP SELECT
HAS INTERNAL
50K RESISTOR
ALL OTHER INPUTS
OPEN

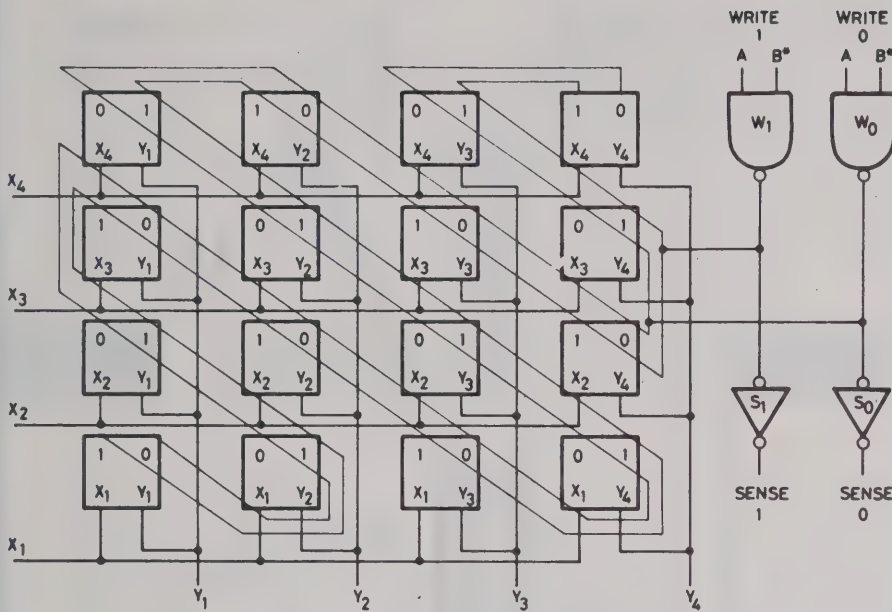
A82



SECTION 9. LOGIC/BLOCK DRAWINGS

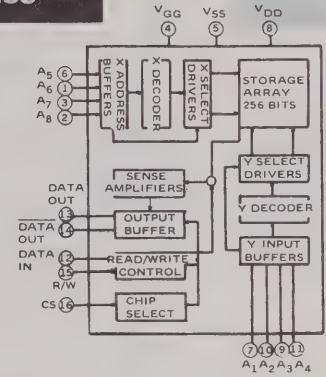
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A84

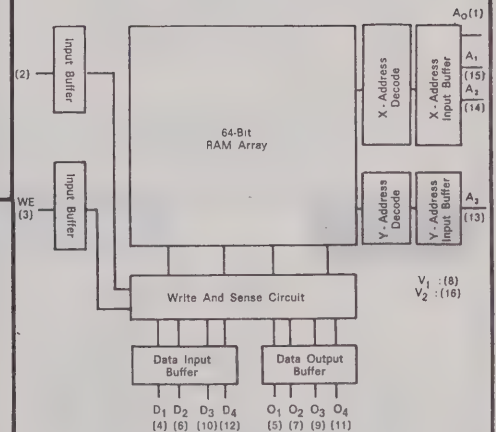


* NOTE: GATED INPUTS (AS SHOWN) ARE AVAILABLE ON A84 ONLY. A84a HAS ONE W₀ AND ONE W₁ INPUT.

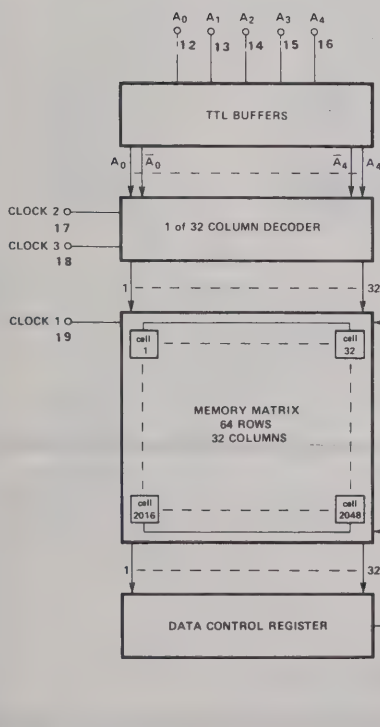
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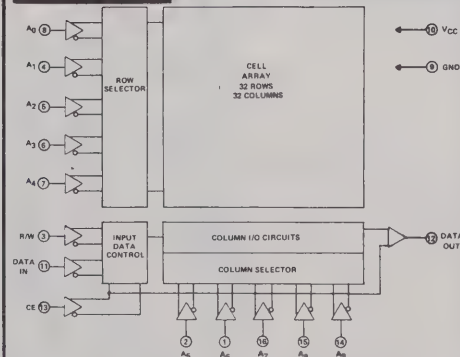
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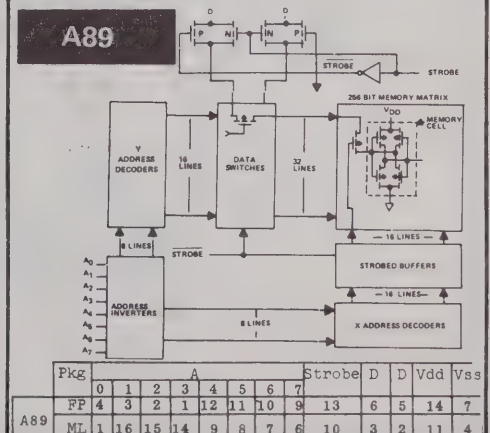
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A88



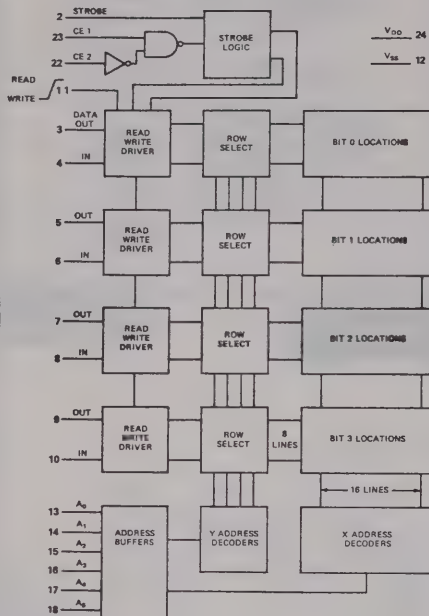
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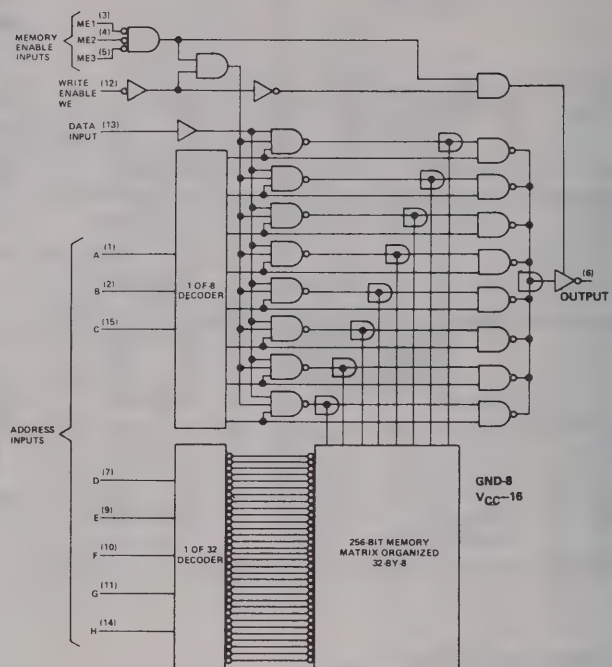
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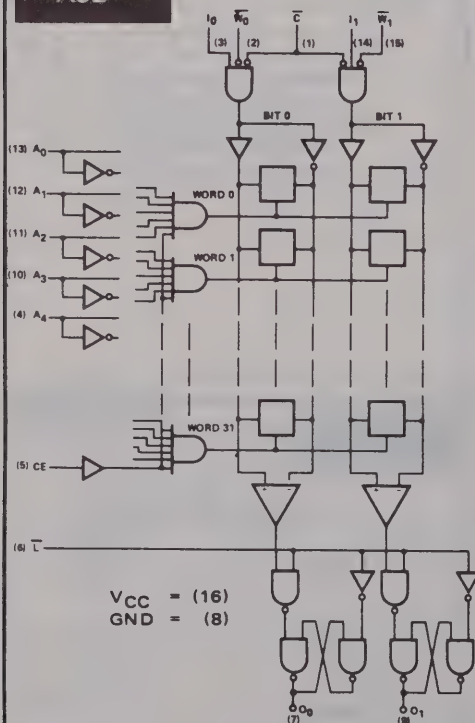
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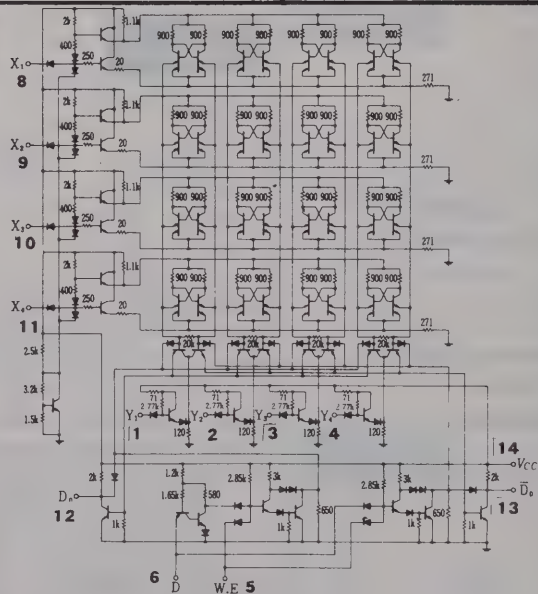
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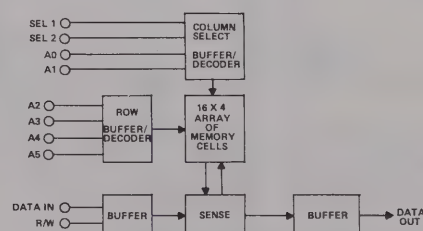
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A93



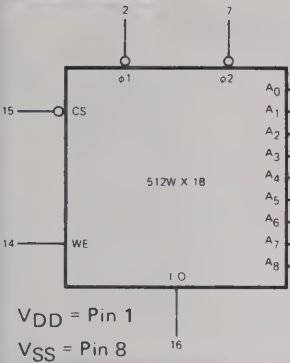
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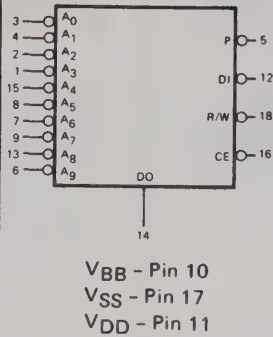
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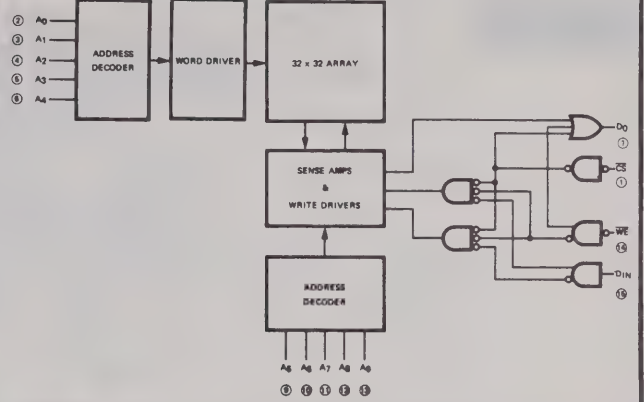
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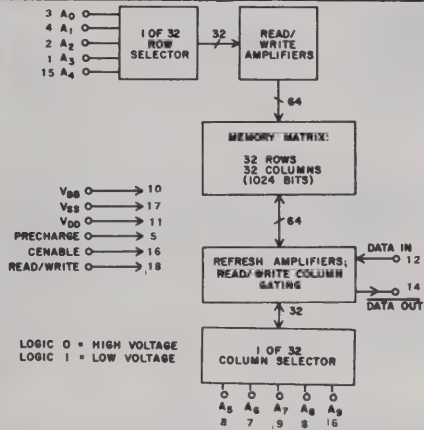
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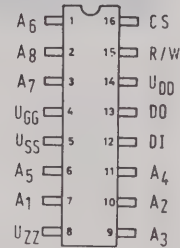
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A98

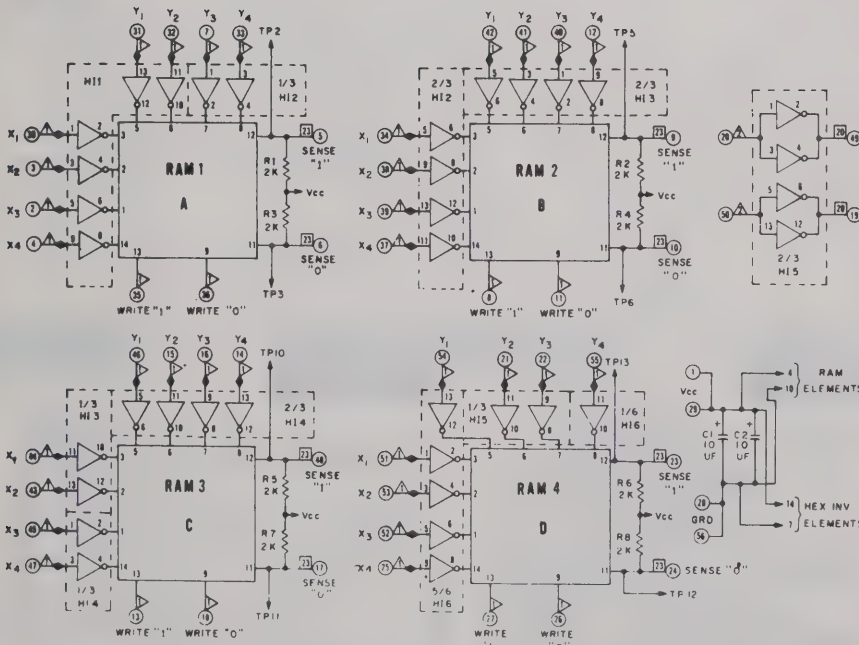


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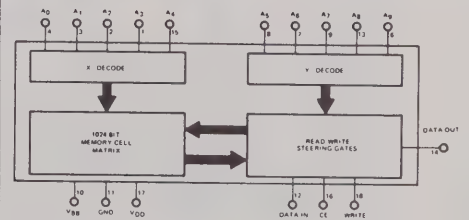


PIN NUMBERS															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A99	A6	A8	A7	VGG	VSS	A5	AV	VCC	A3	A2	A4	DI	DO	VDD	H/W
A99a	A	ME	WE	D1	S1	D2	S2	GND	S3	D3	S4	D4	D	C	B

A100



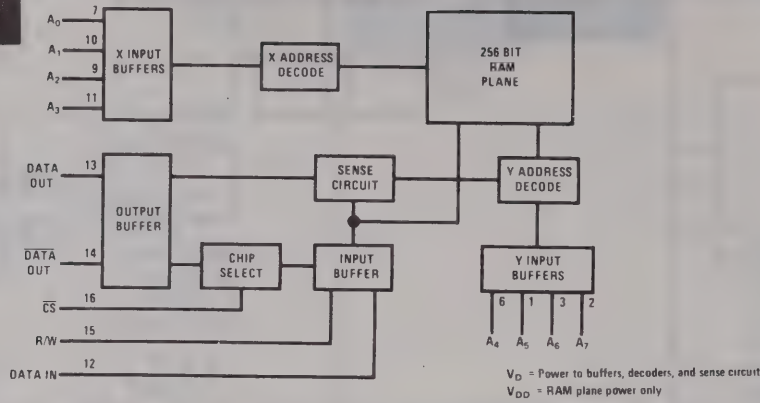
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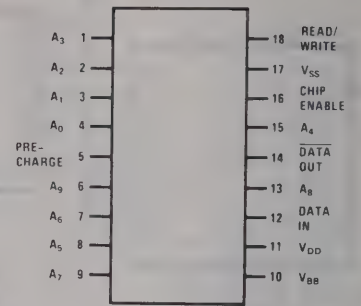
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

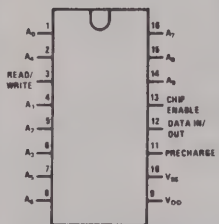
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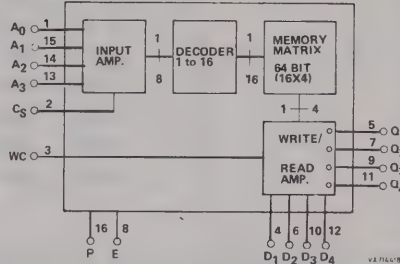
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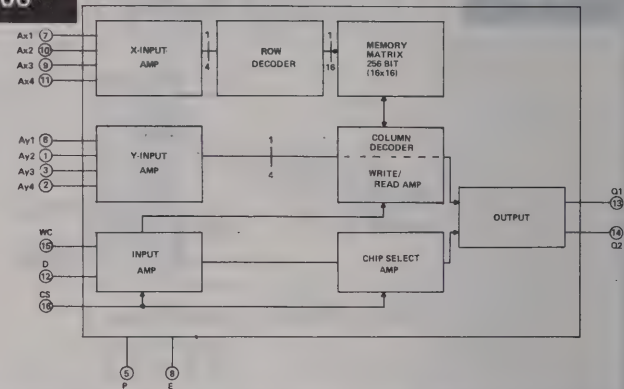
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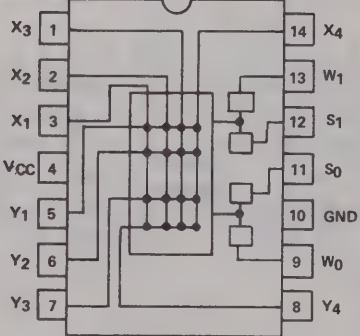
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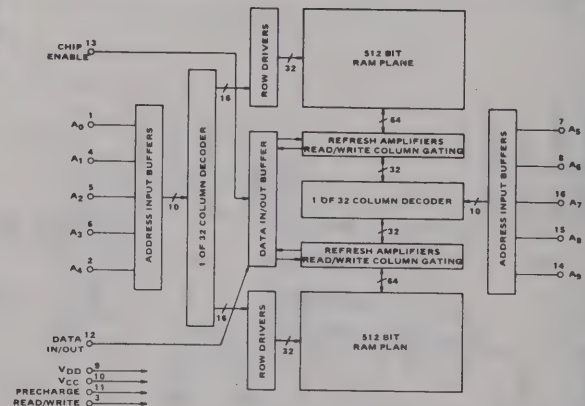
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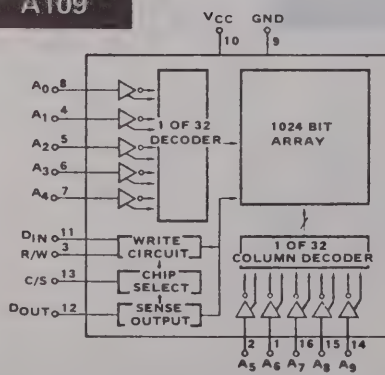
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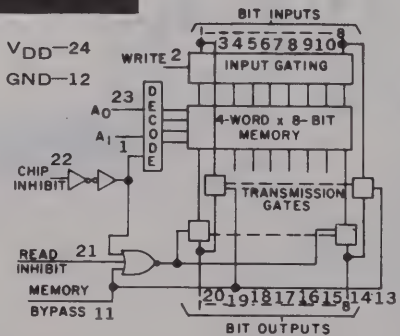
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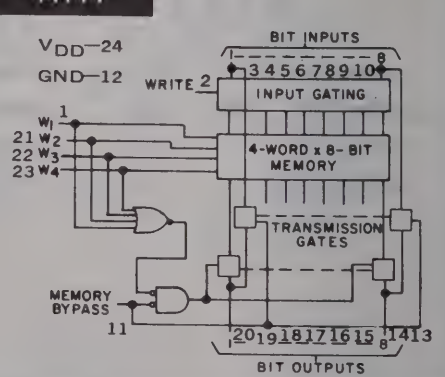
A109



A110



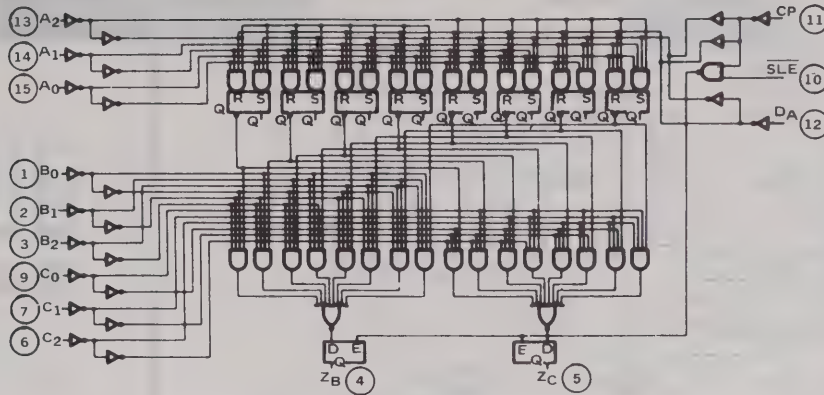
A111



SECTION 9. LOGIC/BLOCK DRAWINGS

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SEQUENCE

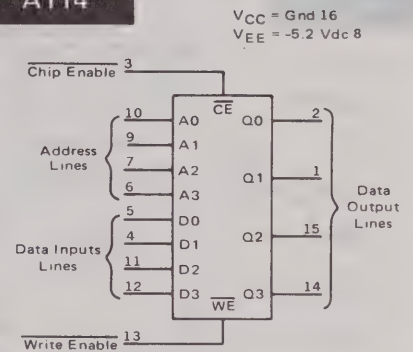
A112



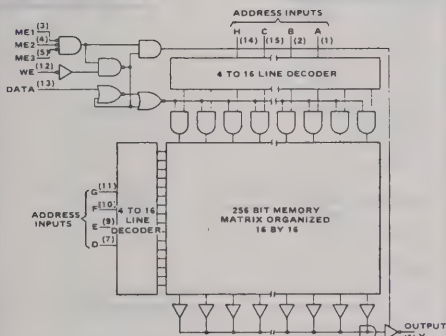
A113



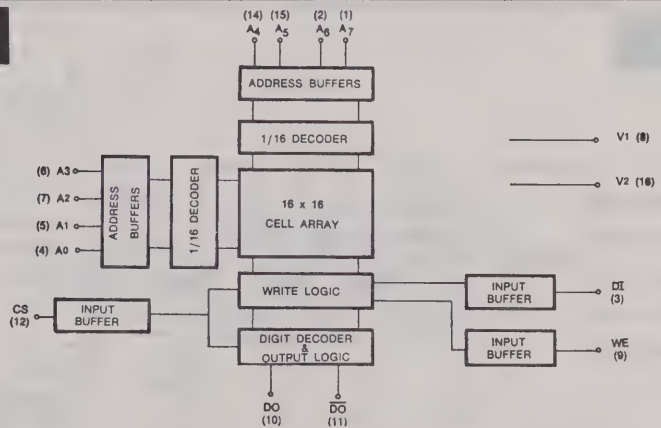
A114



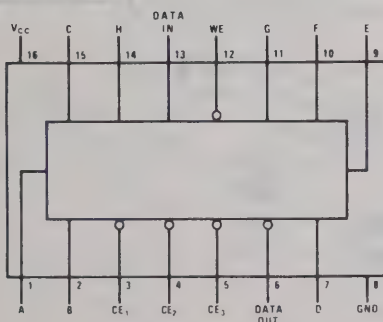
A115



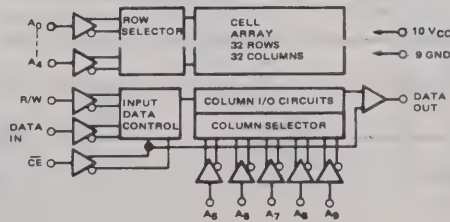
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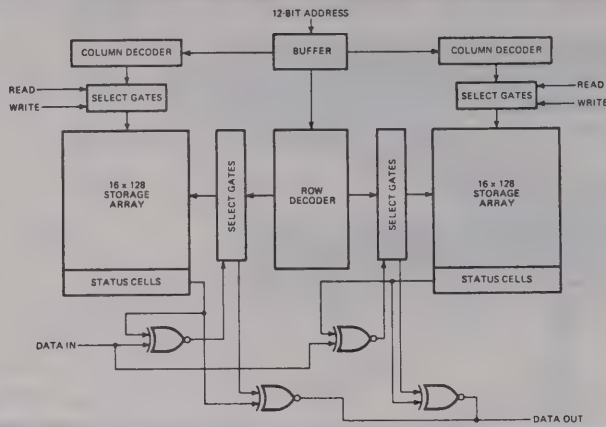
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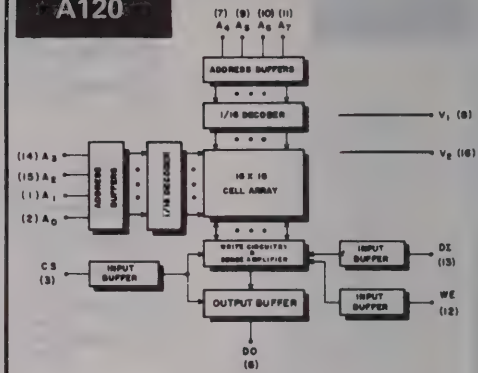
A118



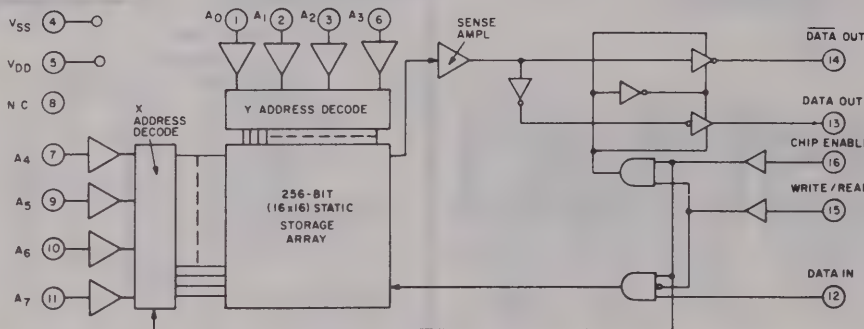
A119



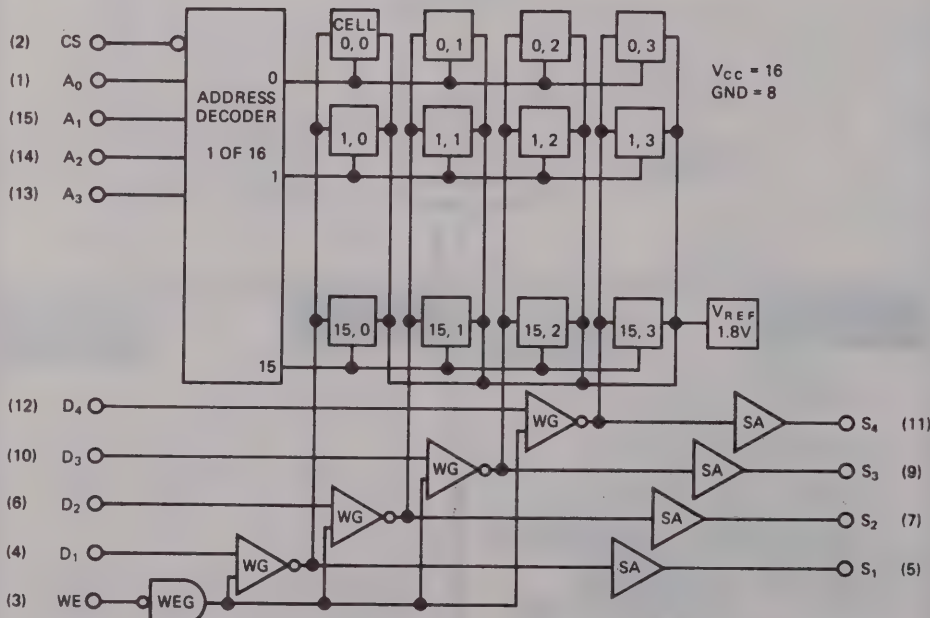
A120



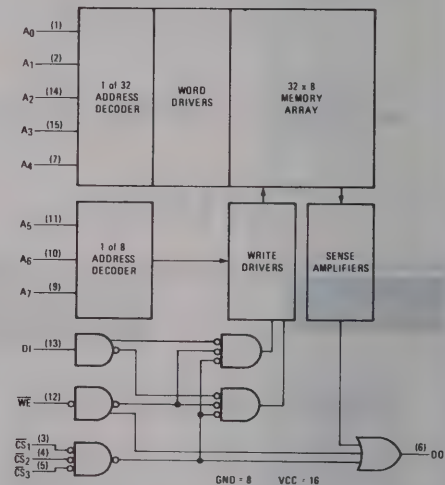
A121



A122

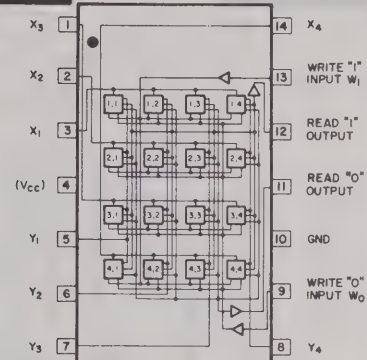


A123



IN DRAWING NUMBER
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A127

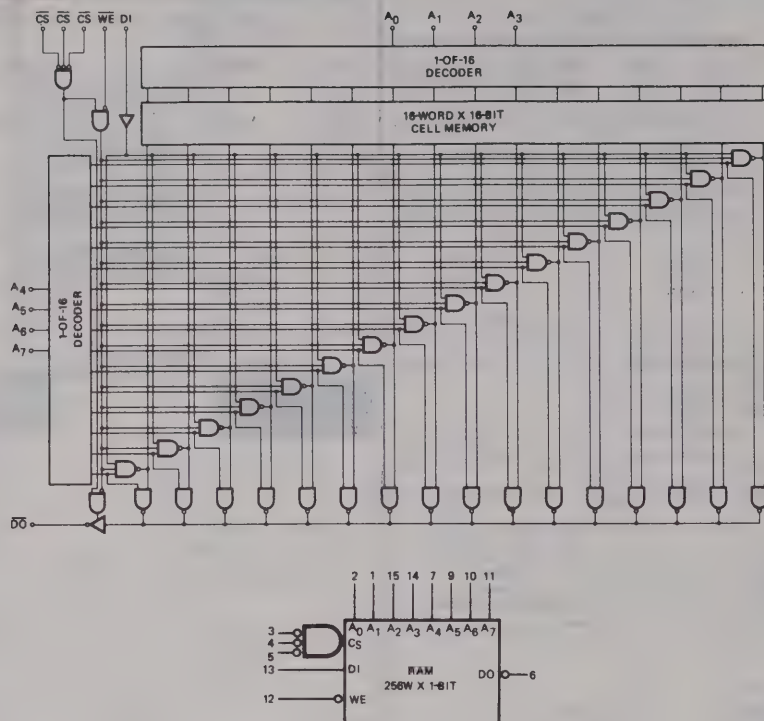
[illegible]

The block diagram illustrates the internal architecture of the 1024-bit memory cell matrix and steering gates. It features two main vertical processing paths. The left path consists of a 'LEVEL SHIFTER' at the top, followed by an 'X DECODE' block, which then connects to the '1024 BIT MEMORY CELL MATRIX'. The right path starts with a 'LEVEL SHIFTER' at the top, followed by a 'Y DECODE' block, which connects to the 'READ/WRITE STEERING GATES'. A bidirectional arrow connects the '1024 BIT MEMORY CELL MATRIX' and the 'READ/WRITE STEERING GATES'. Below the steering gates is another 'LEVEL SHIFTER'. A 'SENSE AMP' is connected to the output of the steering gates, leading to a 'DATA OUT' terminal. The diagram is labeled with various pins: A₀ through A₉ at the top, V_{BA}, GND, and V_{DD} at the bottom left, DATA IN, CHIP ENABLE, and WRITE at the bottom right, and pin 14 for DATA OUT on the right side.

SECTION 9. LOGIC/BLOCK DRAWINGS

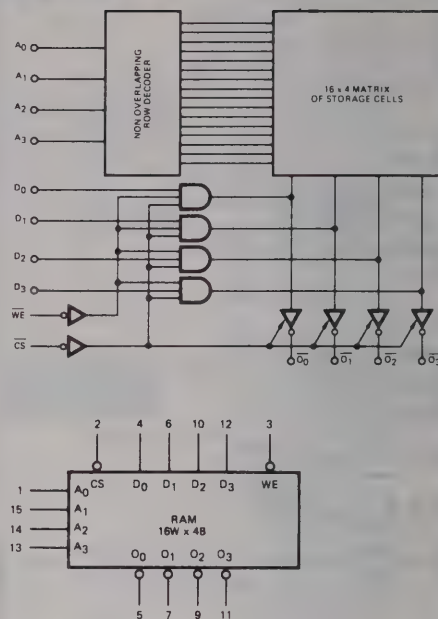
IN DRAWING NUMBER
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A130



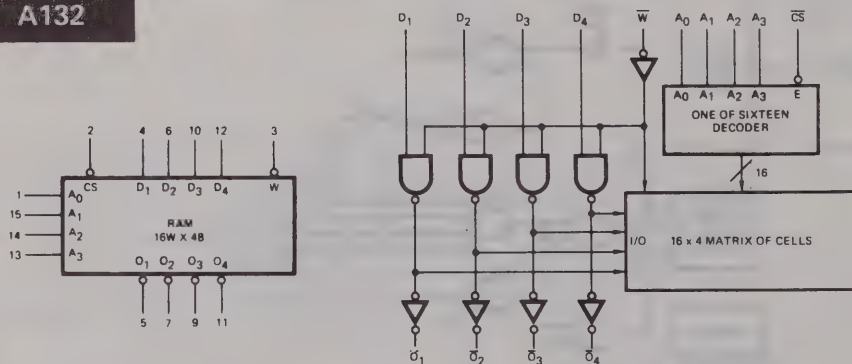
V_{CC} = PIN 16
GND = PIN 8

A131

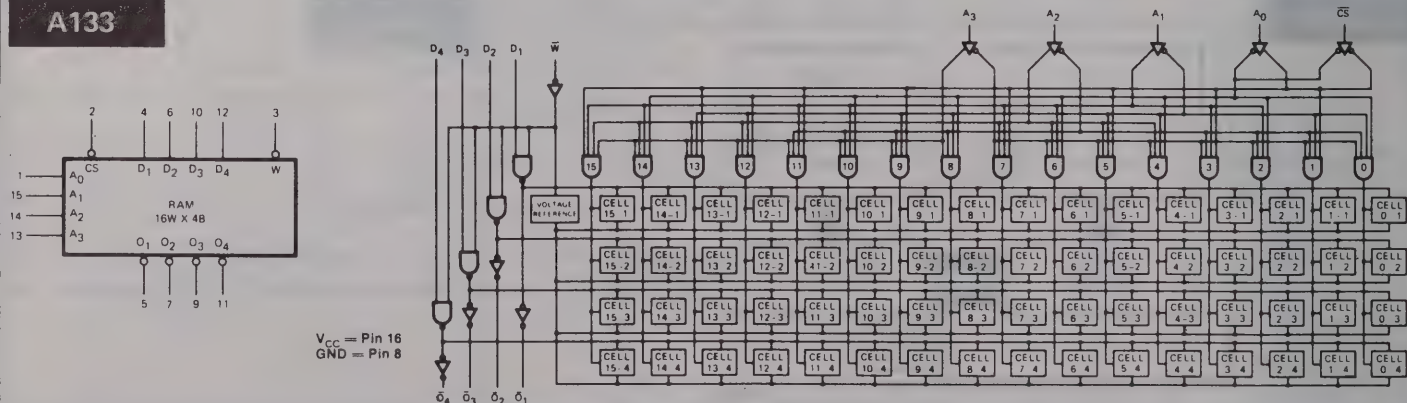


V_{CC} = Pin 16
GND = Pin 8

A132



A133

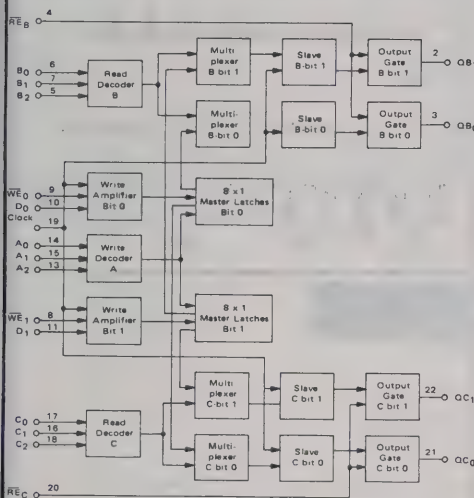


V_{CC} = Pin 16
GND = Pin 8

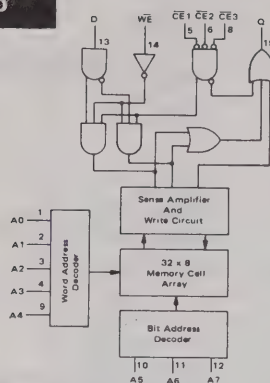
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

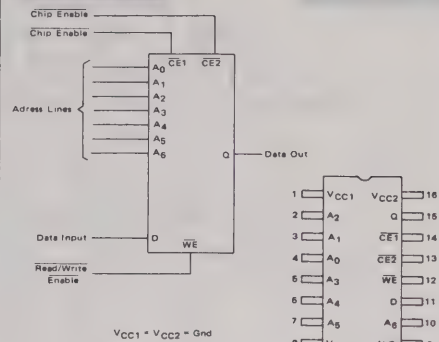
A134



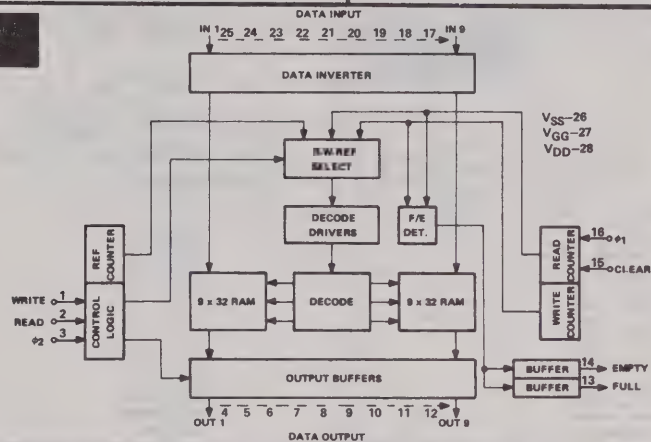
A135



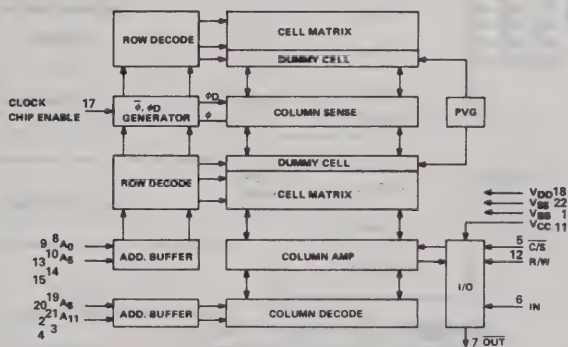
A136



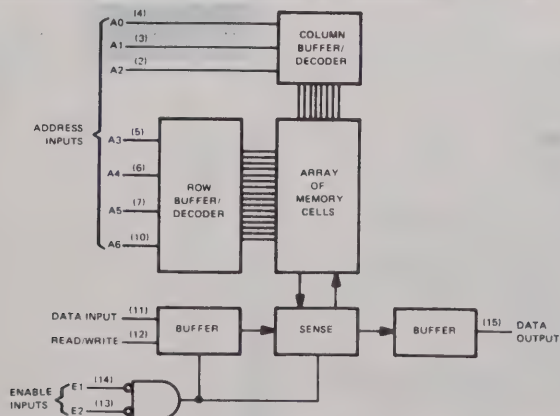
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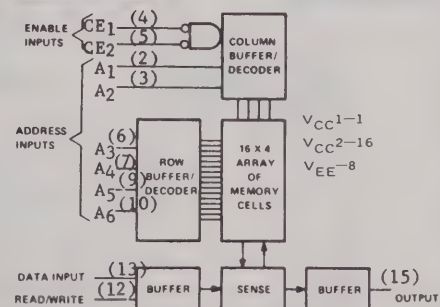
A138



A139

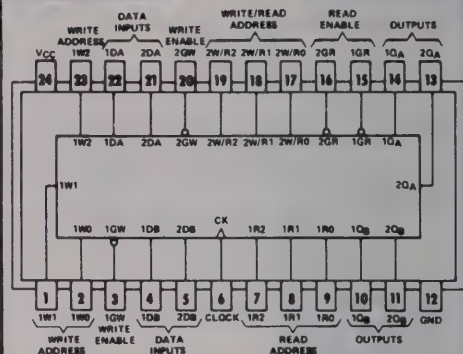


A140

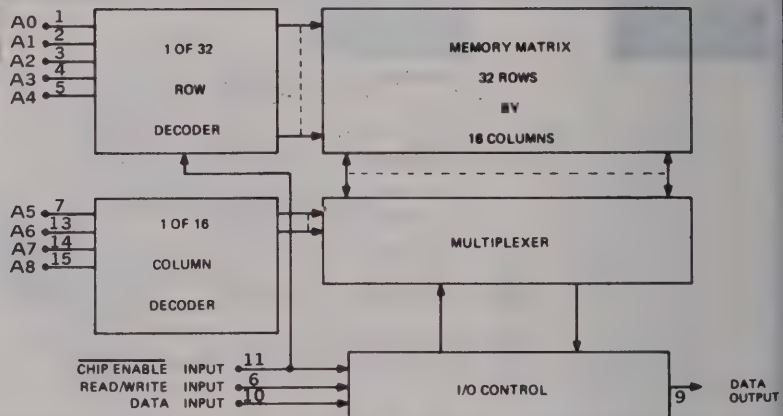


IN DRAWING NUMBER
SEQUENCE

A142



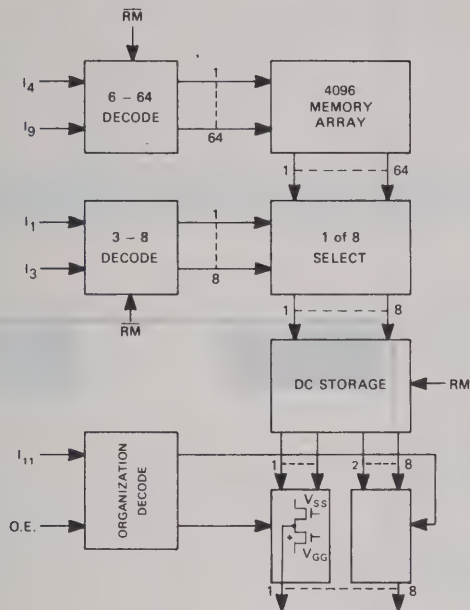
A0 $\frac{1}{2}$
A1 $\frac{2}{3}$
A2 $\frac{3}{4}$
A3 $\frac{4}{5}$
A4 $\frac{5}{6}$



SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

A145



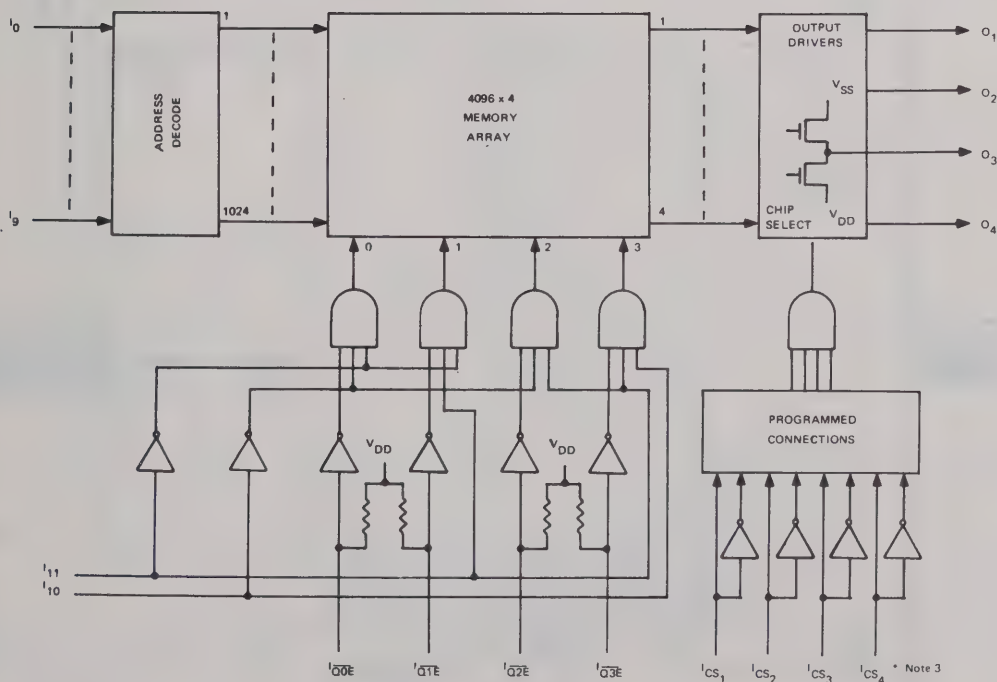
Pin/Func.

1 V_{SS}
2 I₁
3 I₂
4 NC
5 NC
6 I₃
7 NC
8 I₉
9 I₈
10 I₇
11 I₆
12 V_{GG}
13 I₅
14 I₄

Pin/Func.

15 I₁₁
16 O.E.
17 NC
18 NC
19 O₁
20 O₂
21 O₃
22 O₄
23 O₅
24 O₆
25 O₇
26 O₈
27 RM
28 V_{DD}

A146



Pin/Function

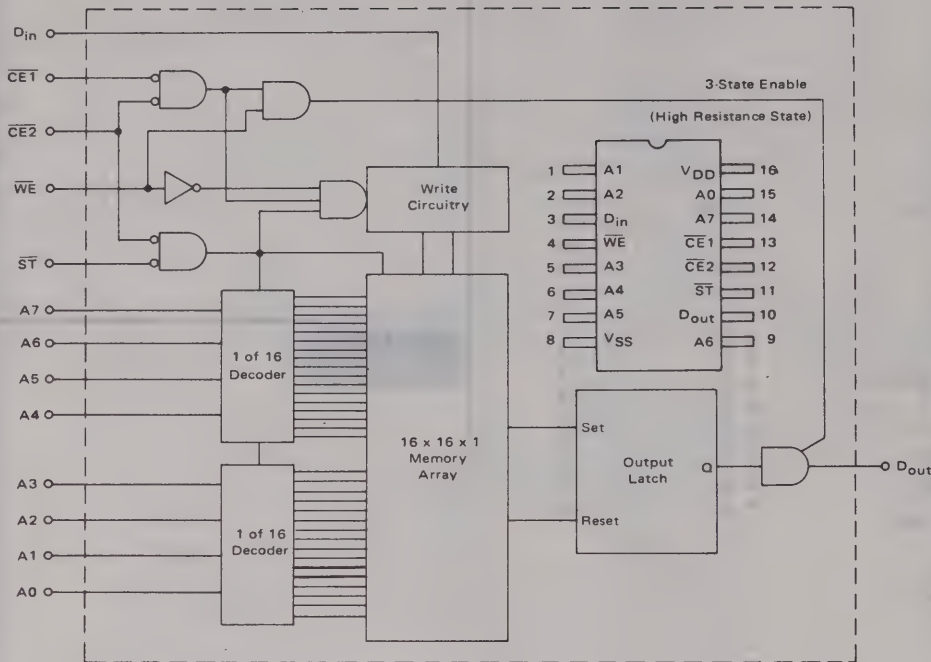
1 V_{SS} (+5V)
2 NC
3 ϕ 1 READ
4 I₀
5 I₁
6 I₂
7 I₃
8 I₄
9 I₅
10 I₆
11 I₇
12 I₈
24 V_{DD} (GRD)
23 I_{CS1}
22 I_{CS2}
21 I_{CS3}
20 I₁₁
19 O₁
18 O₂
17 O₃
16 O₄
15 V_{GG} (-12V)
14 I₁₀
13 I₉

A146a

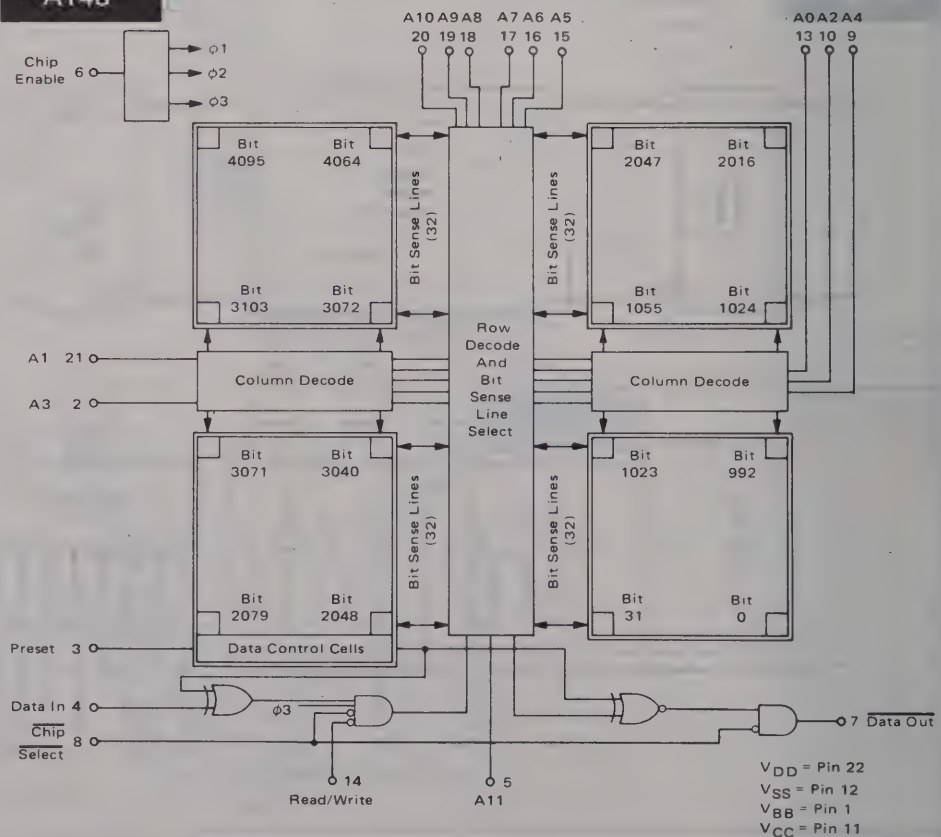
Pin/Function

1 V_{SS}
2 ϕ 1 READ
3 NC
4 I₀
5 I₁
6 I₂
7 I₃
8 I₄
9 I₅
10 I₆
11 I₇
12 I₈
13 I_{00E}
14 I_{0TE}
28 V_{DD}
27 I_{CS1}
26 I_{CS2}
25 I_{CS3}
24 I₁₁
23 O₁
22 O₂
21 O₃
20 O₄
19 V_{GG}
18 I₁₀
17 I₉
16 I_{03E}
15 I_{02E}

A147



A148

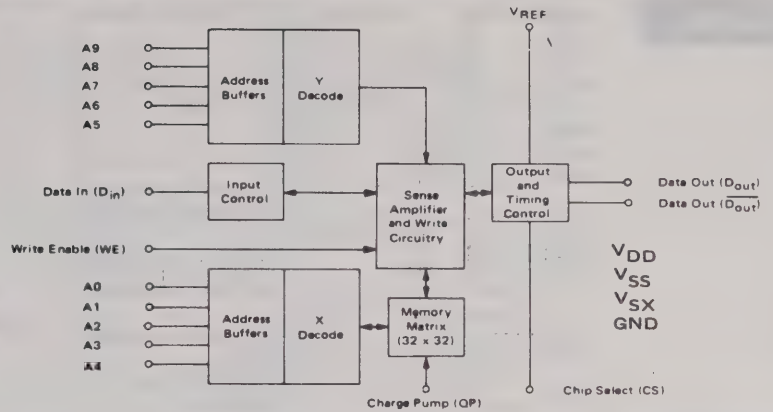


SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

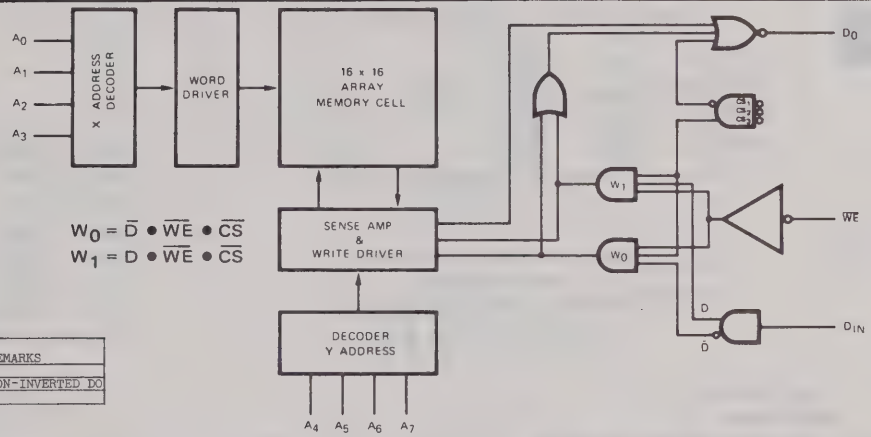
A149

		A																					
		0	1	2	3	4	5	6	7	8	9	DIN	WE	QP	CS	VREF	DOUT	DOUT	VDD	VSS	VSX	GND	
A149		2	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	1
A149a		8	9	16	13	10	5	4	3	2	21	17	18		6	22	19	20	16				12

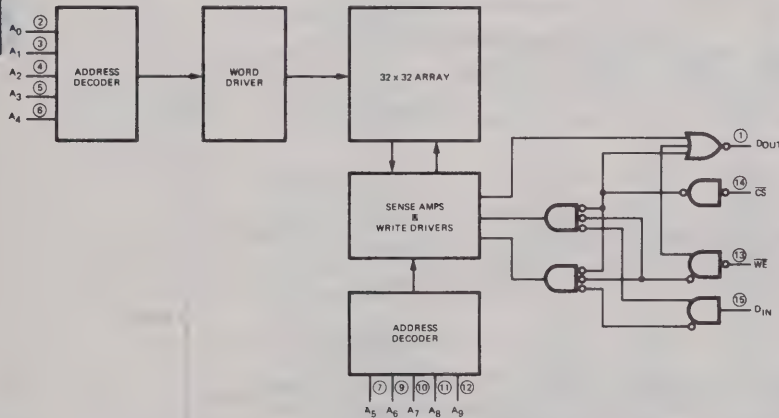


A150

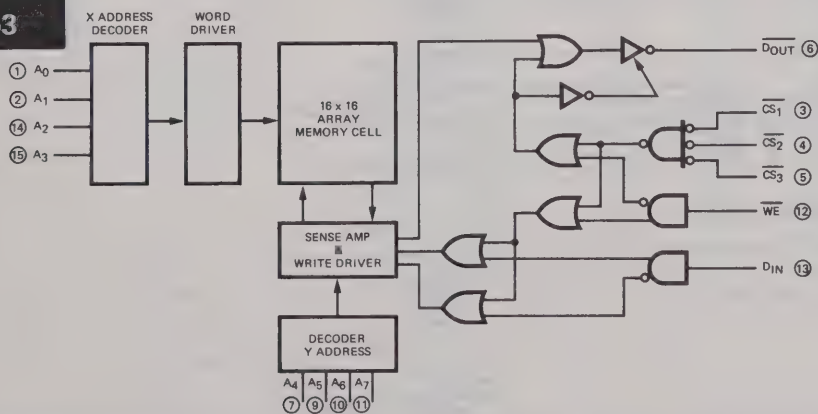
	A								DO	CS				WE	DIN	REMARKS
	0	1	2	3	4	5	6	7		1	2	3	4			
A150	1	2	3	4	9	10	11	12	15	5	6	7	14	13	NON-INVERTED DO	
A150a	1	2	14	15	7	9	10	11	6	3	4	5	12	13		
A150b	1	2	3	4	12	13	14	15	11	5	6	7	10	9		



A151



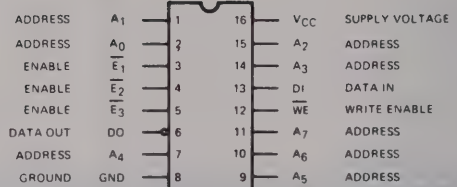
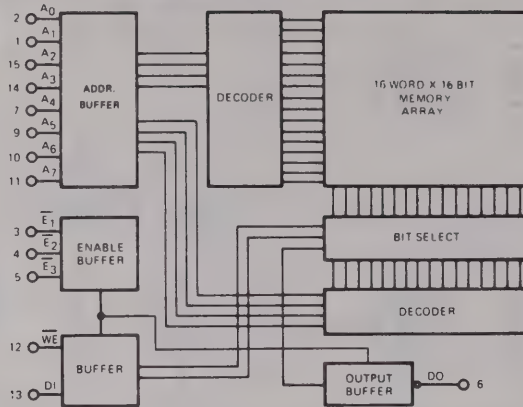
A153



SECTION 9. LOGIC/BLOCK DRAWINGS

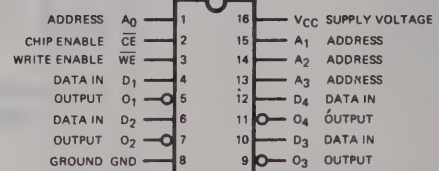
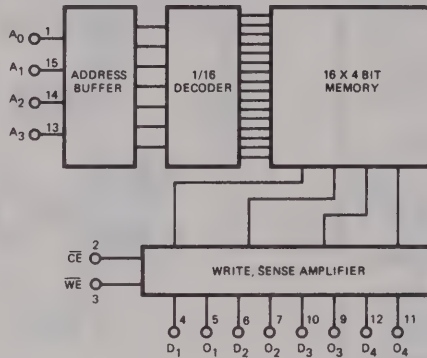
IN DRAWING NUMBER
SEQUENCE

A154



LOW = ENABLE LOW = WRITE DATA IN = DATA OUT

A155

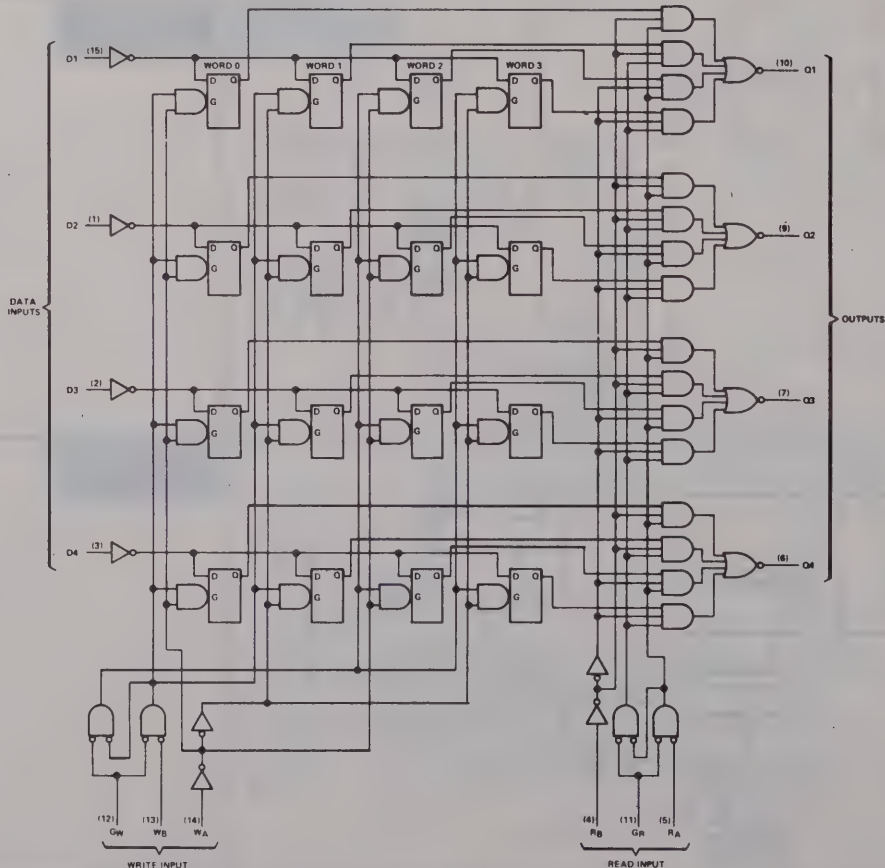


LOW = ENABLE LOW = WRITE DATA IN = DATA OUT

VCC = PIN 16

GND = PIN 8

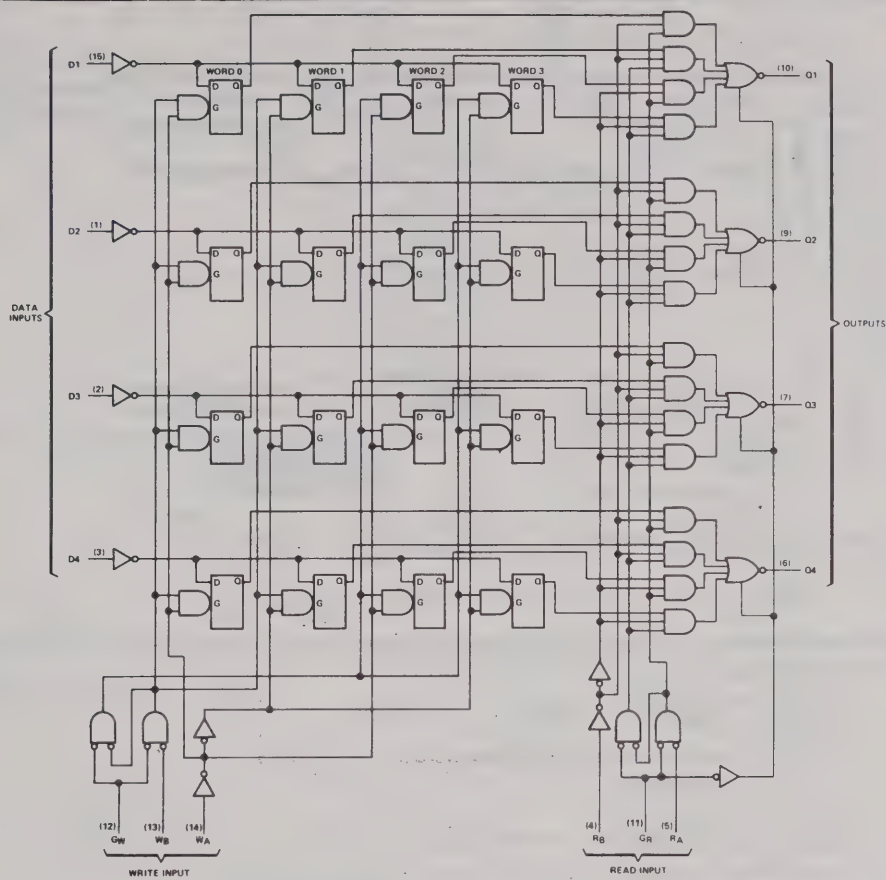
A156



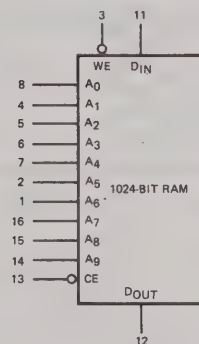
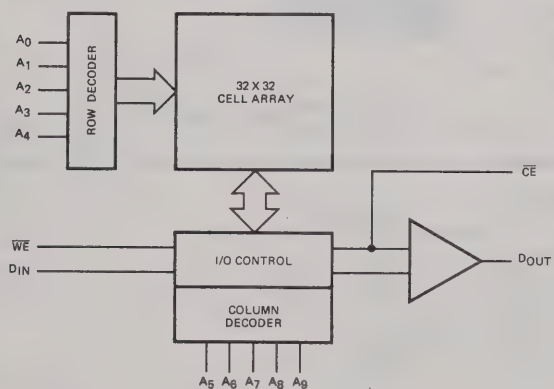
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

A157

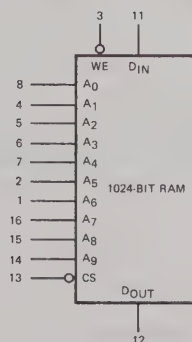
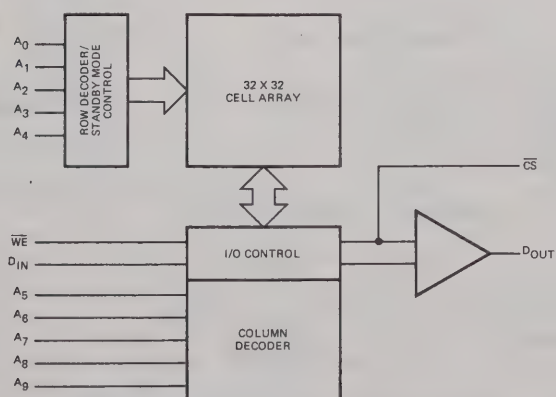


A158



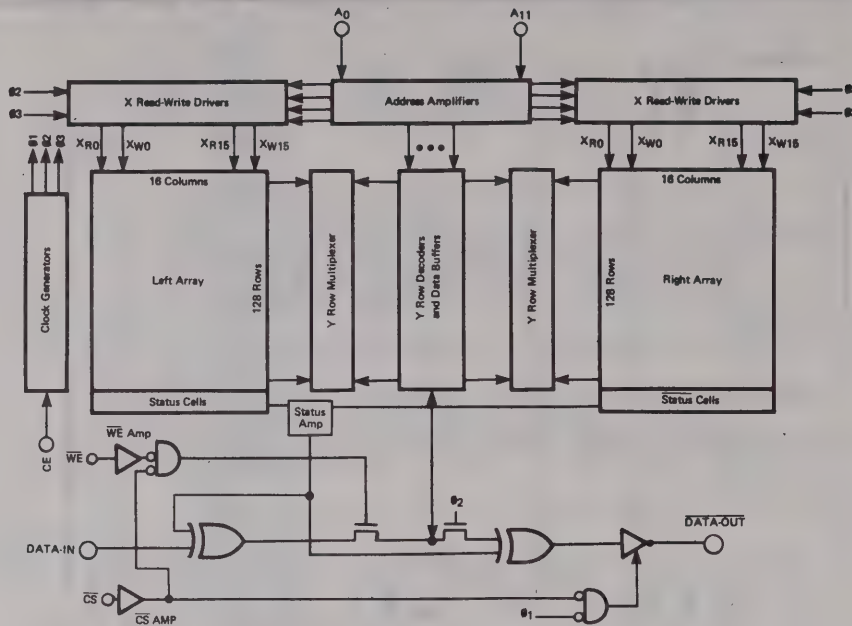
VCC = Pin 10
GND = Pin 9

A159

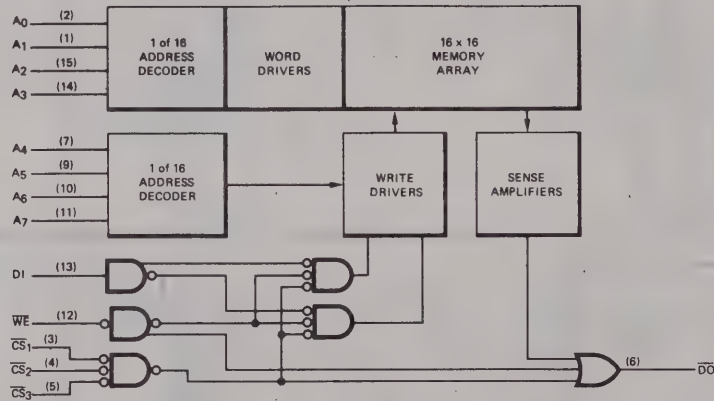


VCC = Pin 10
GND = Pin 9

A160

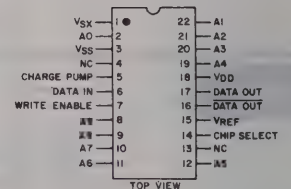
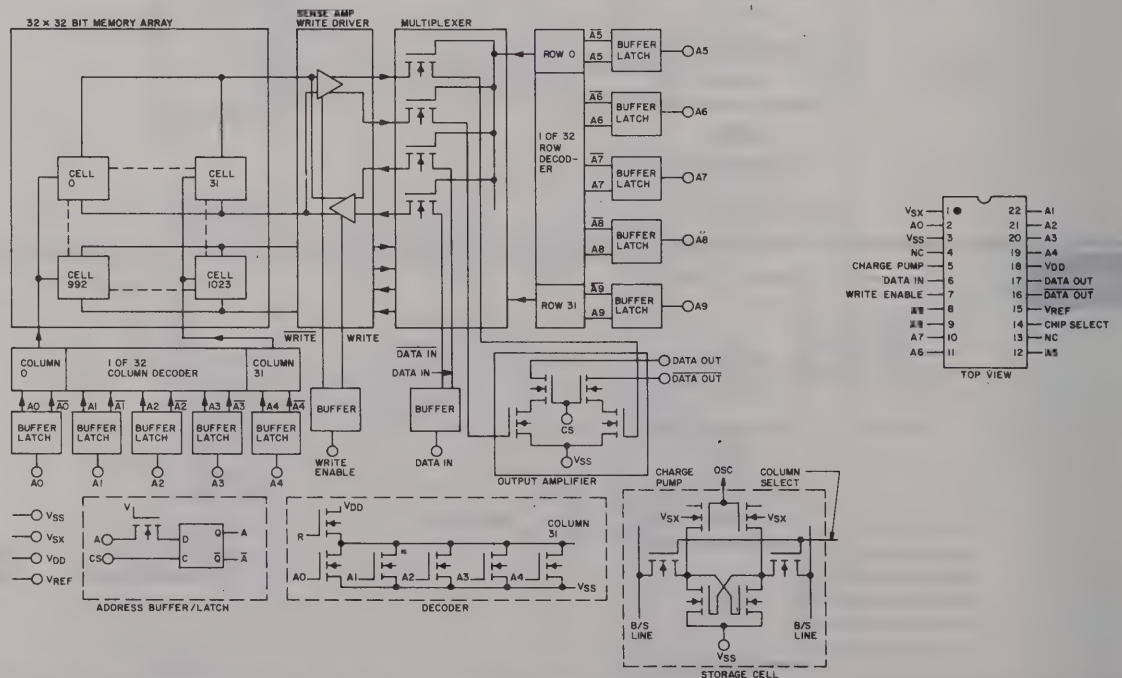


A161



V_{CC} = LEAD 16
GND = LEAD 8

A162



IN DRAWING NUMBER
SEQUENCE

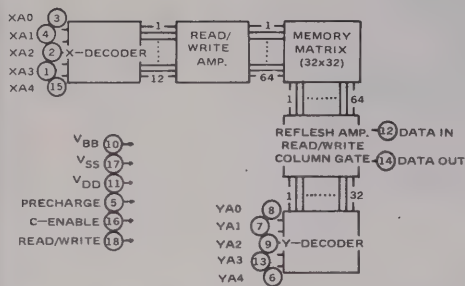
Block diagram of the 32K16000 memory system. The diagram shows a 32 x 32 Memory Array connected to an X Address Decode block and a Y Address Decode block. The X Address Decode block has inputs A0, A1, A2, A3, A4 and outputs 1W, 1R, 32W, and 32R. The Y Address Decode block has inputs A5, A6, A7, A8, A9 and output R/W. Refresh Amplifiers are connected to the memory array and the Y Address Decode block, with inputs 1 and 32, and outputs 32 and 1. The Refresh Amplifiers also have inputs VSS and D0. The memory array has inputs VBB, VSS, and VDD. Logic 0 is High Voltage and Logic 1 is Low Voltage.

[illegible]

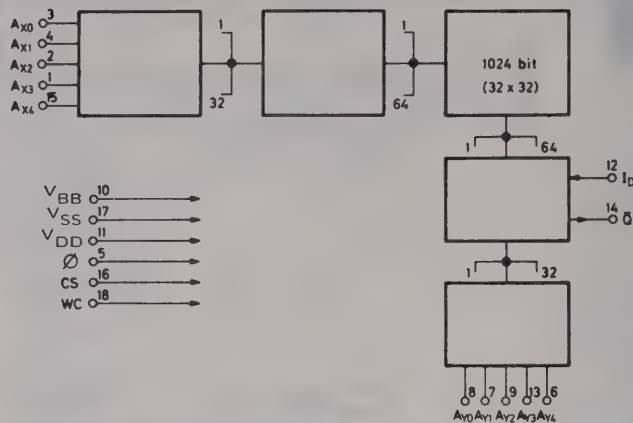
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

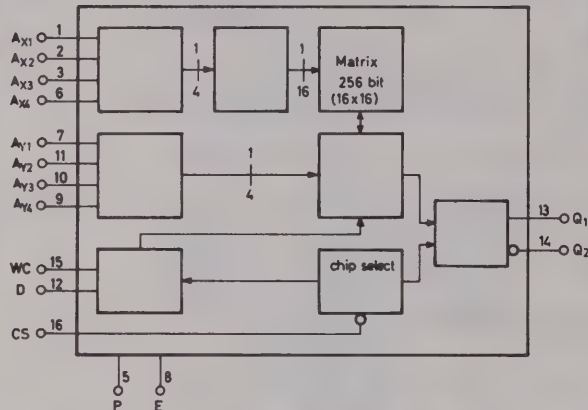
A168



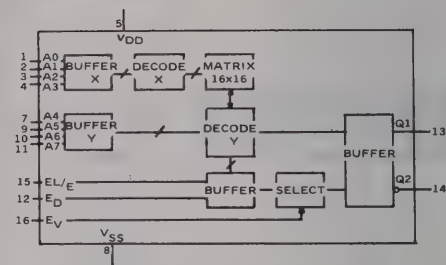
A169



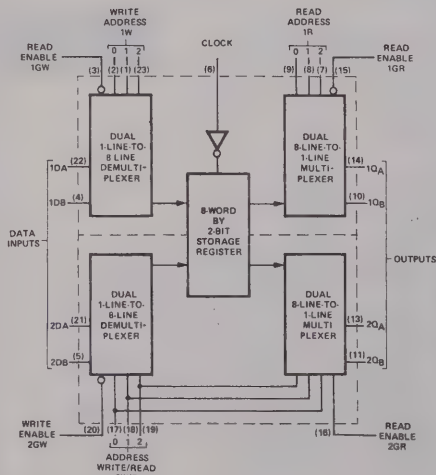
A170



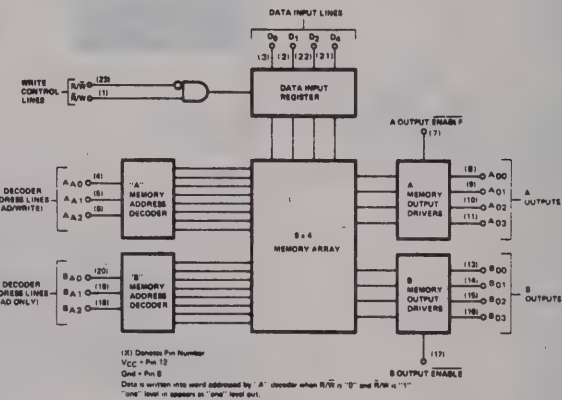
A171



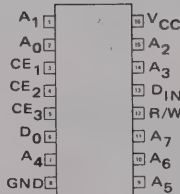
A172



A173



A174



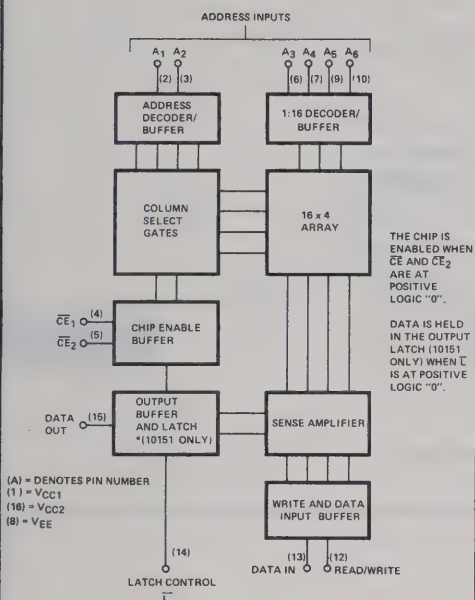
"ONE" LEVEL IN ON DATA INPUT APPEARS AS "ZERO" LEVEL OUT. Chip is enabled when $\overline{CE}_1 = \overline{CE}_2 = \overline{CE}_3 = "0"$

VCC = (16)
GND = (8)
() = Denotes Pin Numbers

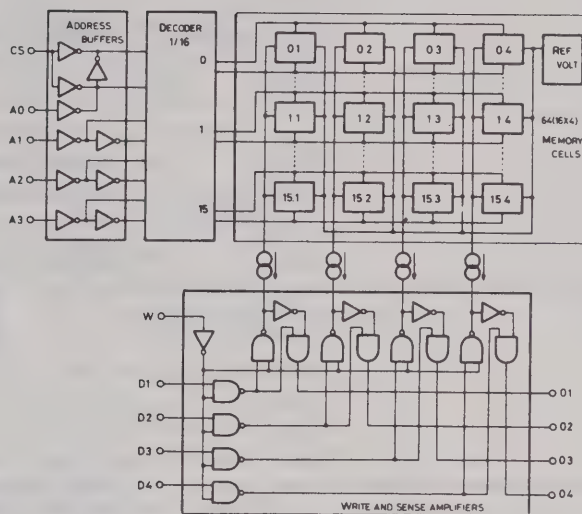
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

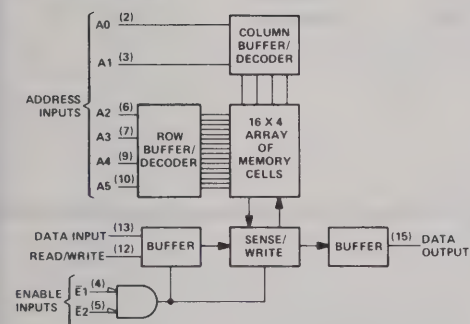
A175



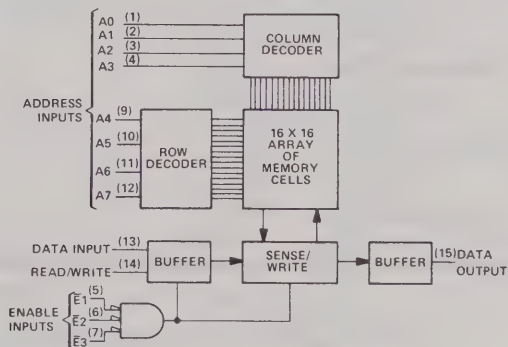
A176



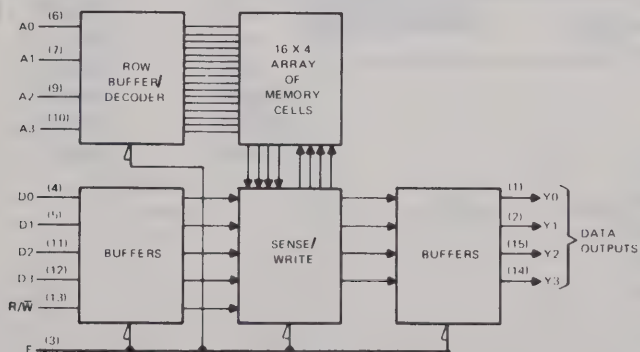
A177



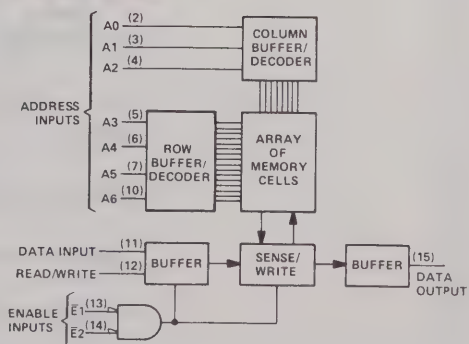
A178



A179



A180



IN DRAWING NUMBER
SEQUENCE

The block diagram illustrates the internal structure of the 21C01 1024-bit RAM. Key components include:

- X Input Buffers:** Receives address bits A₀ through A₃.
- X Address Decode:** Receives address bits A₄ through A₇.
- X Line Drivers:** Receives address bits A₈ through A₁₁.
- 1024 Bit RAM Plane:** The main memory array, connected to address lines A₁₂ through A₁₅ and data lines D₀ through D₇.
- Y Address Decode:** Receives address bits A₁₆ through A₁₉.
- Y Input Buffers:** Receives address bits A₂₀ through A₂₃.
- Sense Circuit:** Receives address bits A₂₄ through A₂₇ and provides feedback to the RAM plane.
- Output Buffer:** Receives data from the RAM plane and outputs it to the DATA OUT I pin.
- Chip Select:** Receives the CS I pin signal.
- Input Buffer:** Receives data from the DATA IN I pin and provides feedback to the RAM plane.

Pin connections are shown on the left and bottom, and power supply connections on the right.

The block diagram illustrates the internal structure of the 256-bit memory array. It features an X-decoder and a Y-decoder. The X-decoder is controlled by address inputs A, B, C, and D, and a data input. The Y-decoder is controlled by address inputs E, F, G, and H, and a data input. The memory array is controlled by a write enable signal and a data input/output signal. The diagram also shows a top view of the memory array with pins for address inputs, data input/output, and enable signals.

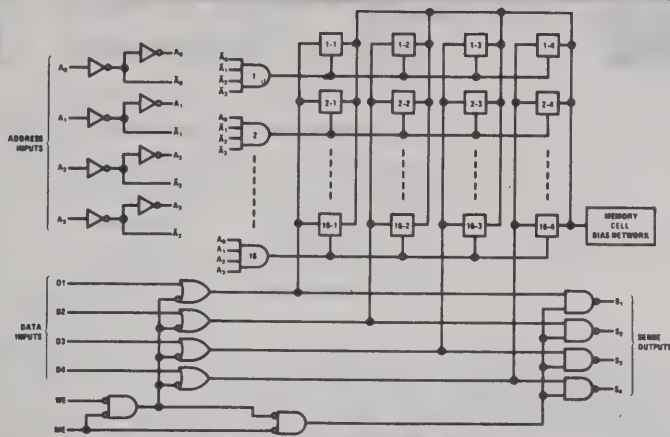
TOP VIEW

Pin	Signal
1	ADDRESS INPUT A
2	ADDRESS INPUT B
3	\overline{CE}_1
4	\overline{CE}_2
5	\overline{CE}_3
6	\overline{DATA} OUT
7	ADDRESS INPUT D
8	GND
9	ADDRESS INPUT E
10	ADDRESS INPUT F
11	ADDRESS INPUT G
12	WRITE ENABLE
13	DATA IN
14	ADDRESS INPUT H
15	ADDRESS INPUT C
16	V _{CC}

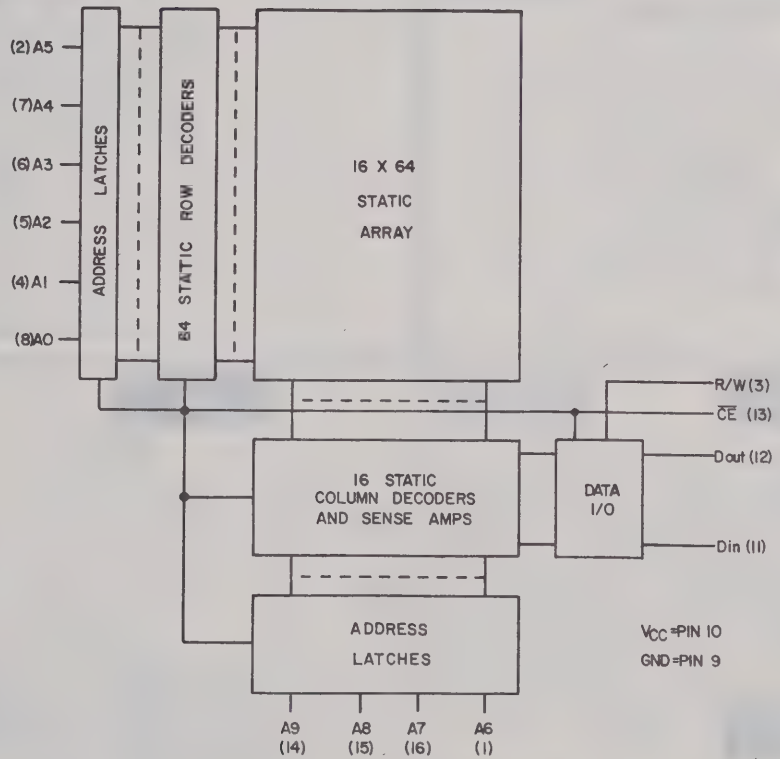
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

A184



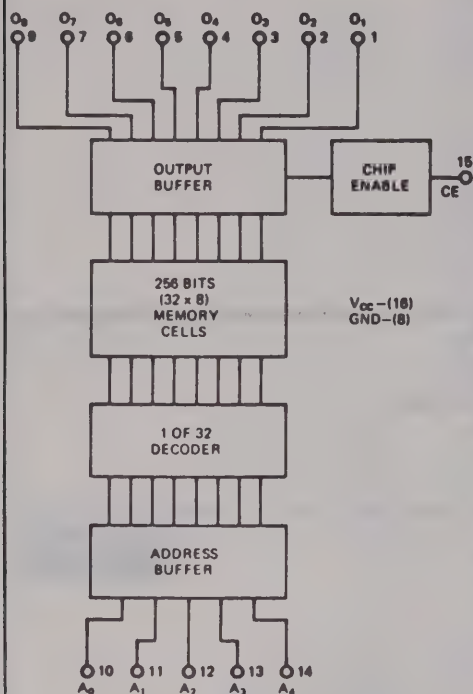
A185



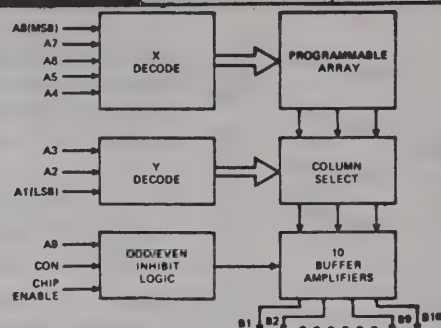
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

B1

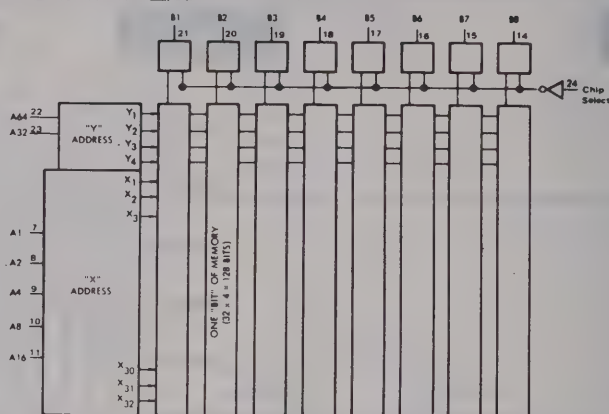


B3

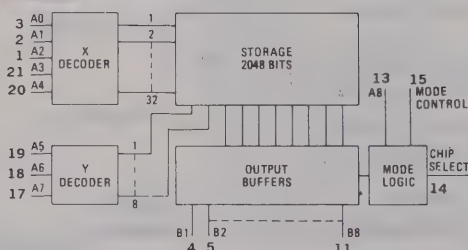


	A										B										CON	CHIP	VSS	VDD	VGG
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	10	11	15	14	12	24	16
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B3b	1	24	23	21	20	19	18	17	13	2	3	4	5	6	7	8	9	10	11	15	14	12	22	16	
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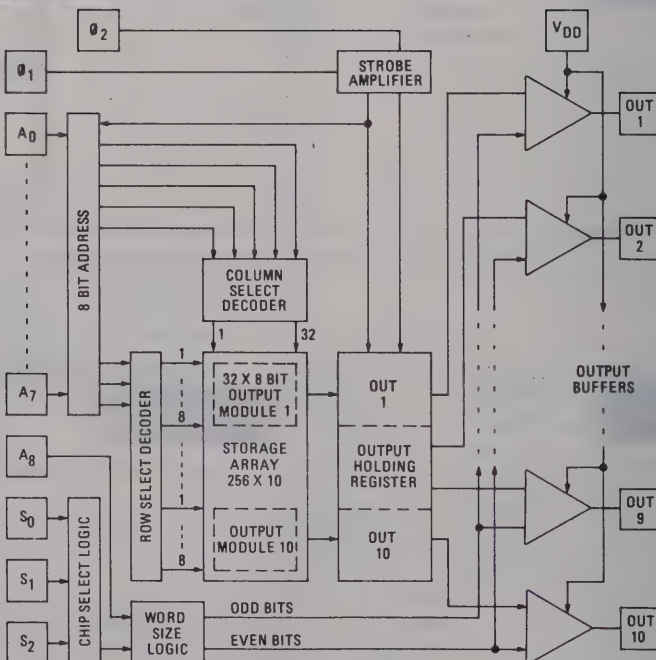
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B5

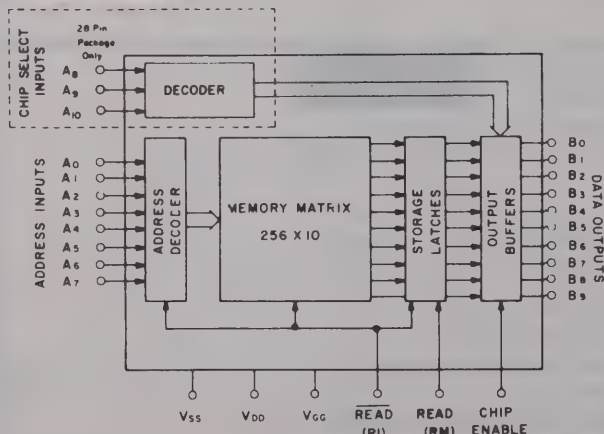


B6



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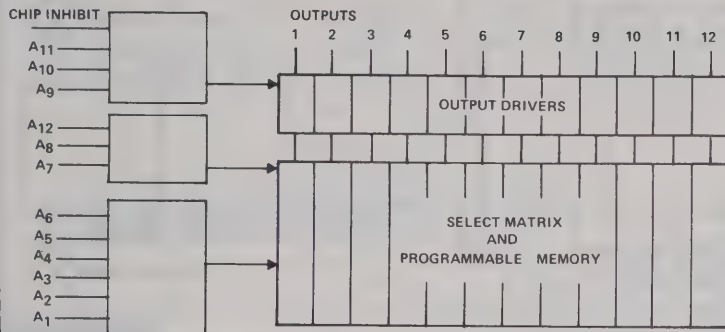
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SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
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B9

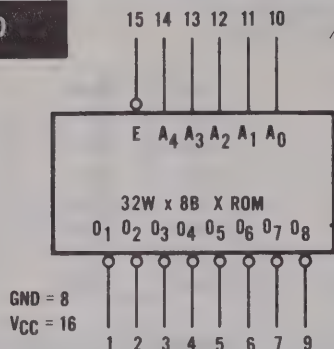


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SECTION 9. LOGIC/BLOCK DRAWINGS

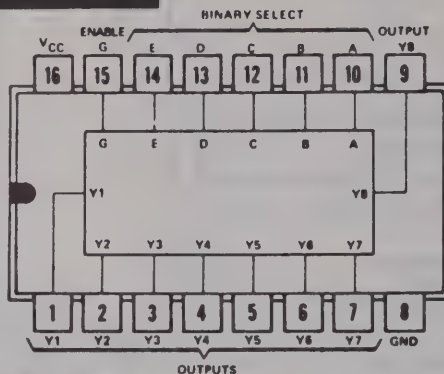
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B20

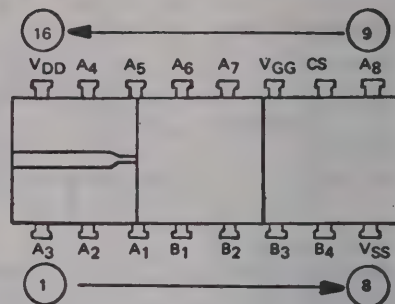


PAIRED DEVICES
B20 T154DIA/T154DB

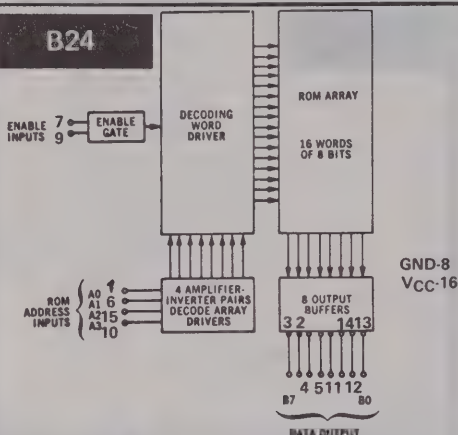
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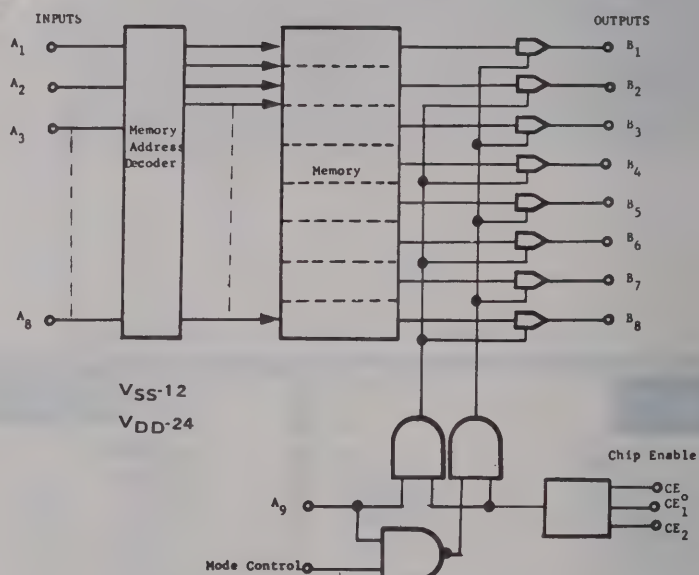
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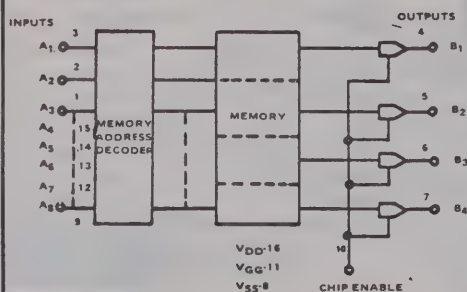
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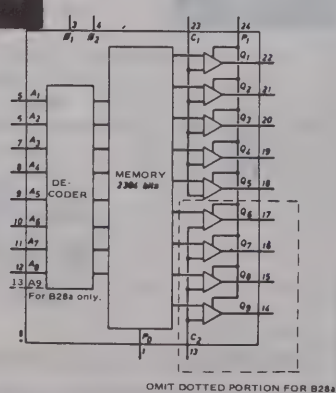
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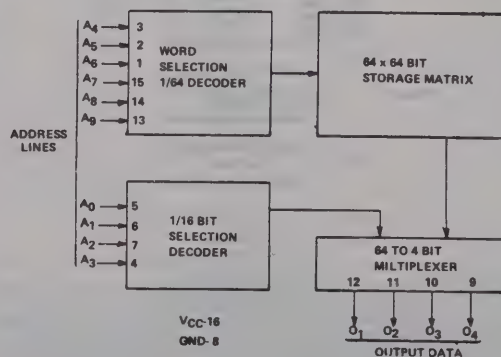
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B28

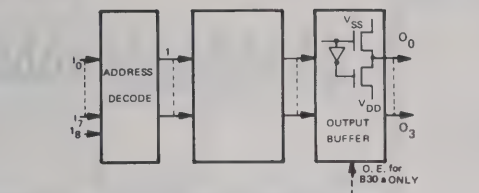


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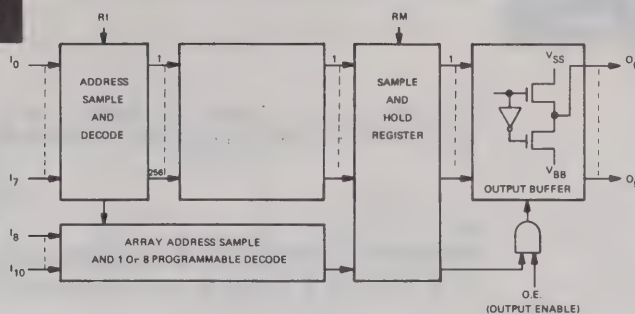
	A									B								CHIP ENABLE			MODE		VCC	
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8	9	0	1	2	CC		EN
B26	3	2	1	21	20	19	18	17	13	4	5	6	7	8	9	10	11	14	NC	NC	15	16		
B26a	3	2	1	21	20	19	18	14	NC	4	5	6	7	8	9	10	11	15	NC	NC	16	17		
B26b	3	2	1	21	20	19	18	17	13	4	5	6	7	8	9	10	11	14	22	23	15	16		
B26c	3	2	1	21	20	19	18	14	NC	4	5	6	7	8	9	10	11	15	22	23	16	17		

B30



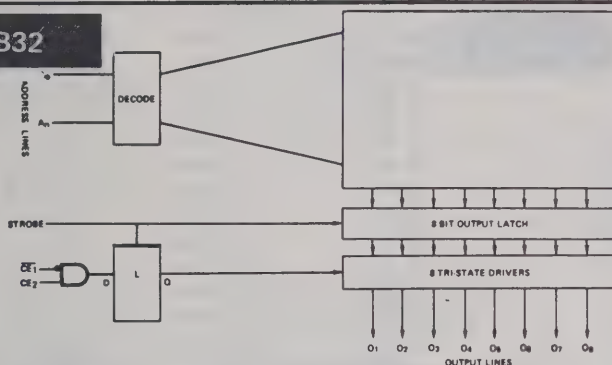
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
B30	12	11	10	8	19	20	21	22	NC	5	6	7	NC	9	1	24									
B30a	12	11	10	8	19	20	21	22	23	5	6	7	9												

B31



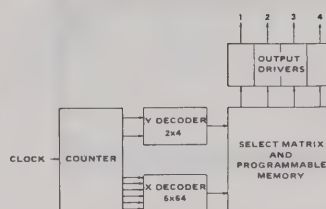
	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
B31	11	10	12	19	16	15	14	13	21	22	23	27	28	29	30	31	33	34	35	36	39	24	1	32	
B31a	6	5	7	14	11	10	9	8	16	17	18	20	21	22	24	25	26	27	28	NC	NC	19	1	23	

B32

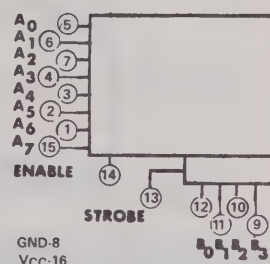


	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
B32	21	22	23	1	2	3	4	5	6	7	8	9	10	14	15	16	17	20	19	18	24	12			
B32a	21	22	23	1	2	3	4	5	6	7	8	9	10	14	15	16	17	20	19	18	24	12			

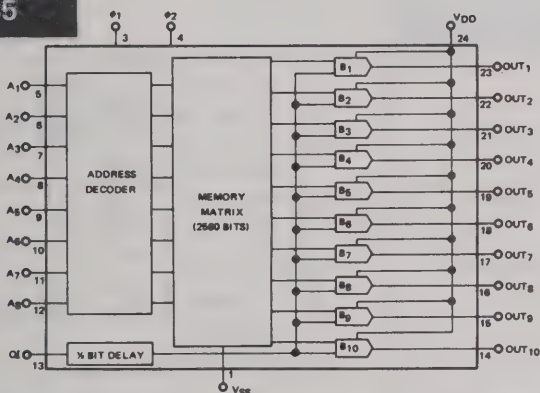
B33



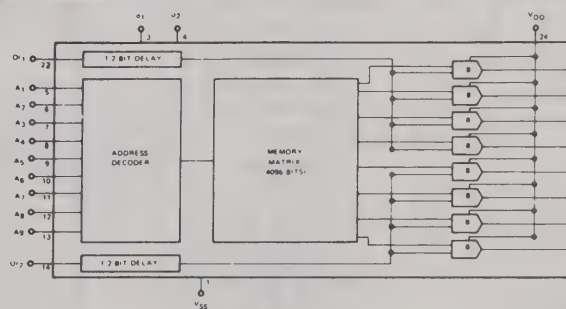
B34



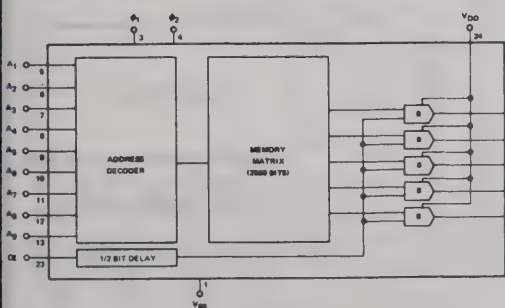
B35



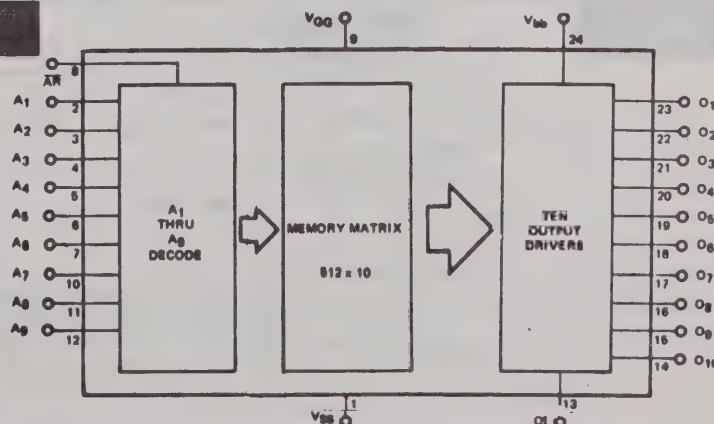
B36



B37



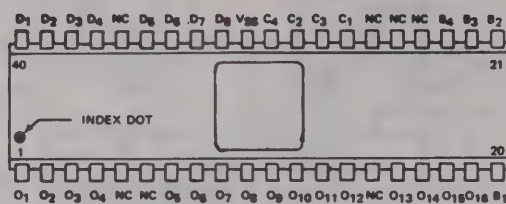
B38



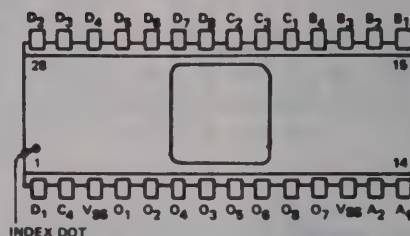
SECTION 9. LOGIC/BLOCK DRAWINGS

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SEQUENCE

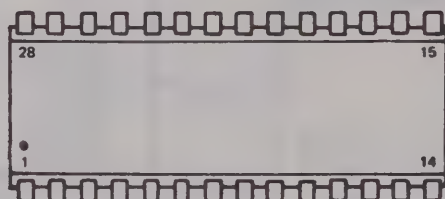
B40



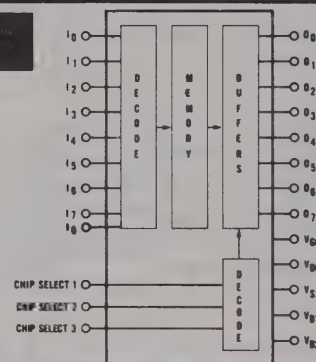
B41



B42

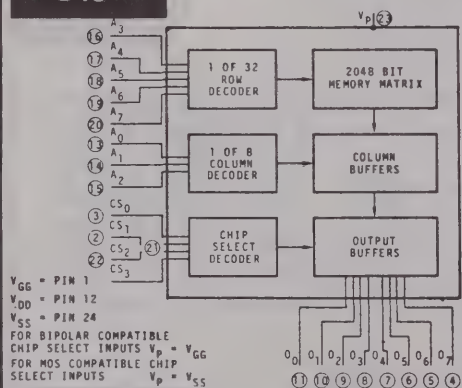


B45

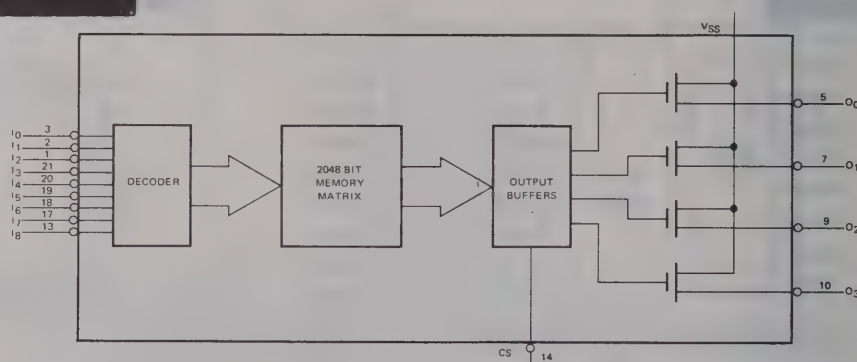


	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
B45	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
B45a	3	2	1	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	0	31	30	29	28

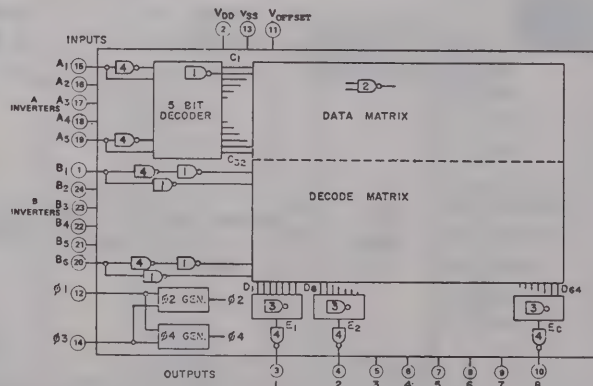
B46



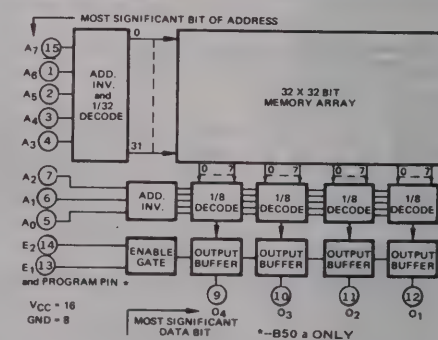
B47



B49



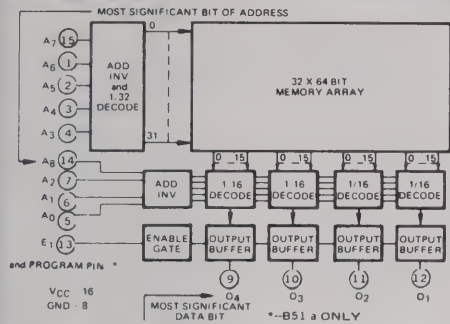
B50



SECTION 9. LOGIC/BLOCK DRAWINGS

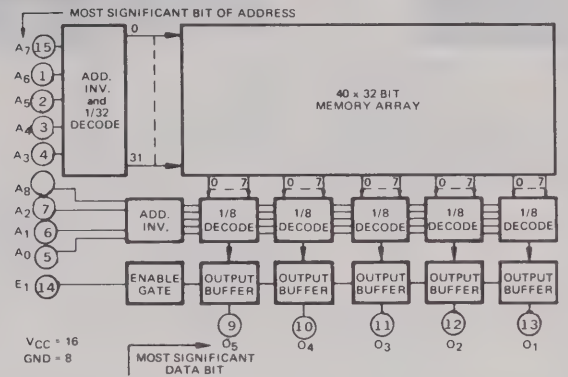
IN DRAWING NUMBER
SEQUENCE

B51

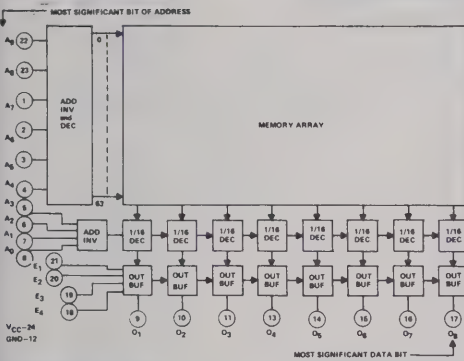


B52

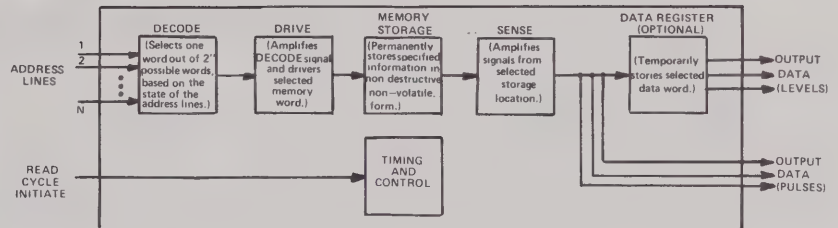
PAIRED DEVICES
B52 MM6210-0001/MM6210-0002
MM6210-0001/MM6210-0002



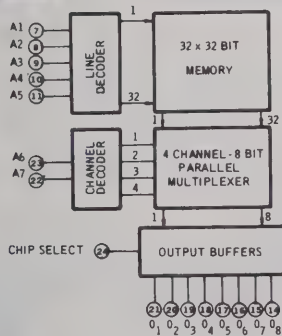
B53



B54



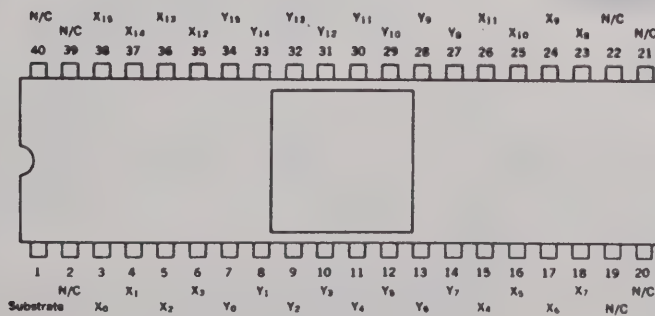
B57



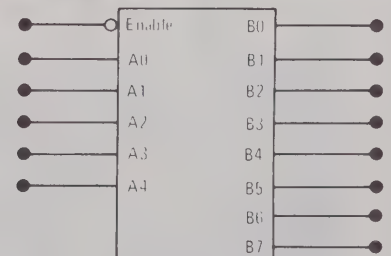
B58

PIN NO.	CHIP ORGANIZATION			
	B58	B58a	B58b	B58c
1	I1	I1	I1	I1
2	I0	I0	I0	I0
3	OE	CE	CE	CE
4	I11	I11	I11	I11
5	I10	I10	I10	I10
6	I9	I9	I9	I9
7	VGG	VGG	VGG	VGG
8	VDD	VDD	VDD	VDD
9	O8	NC	NC	NC
10	O7	NC	NC	NC
11	O6	O4	NC	NC
12	O5	O3	O2	NC
13	O4	O2	NC	O1
14	O3	O1	O1	NC
15	O2	NC	NC	NC
16	O1	NC	NC	NC
17	VSS	VSS	VSS	VSS
18	I8	I8	I8	I8
19	I7	I7	I7	I7
20	I6	I6	I6	I6
21	I5	I5	I5	I5
22	I4	I4	I4	I4
23	I3	I3	I3	I3
24	I2	I2	I2	I2

B59



B60

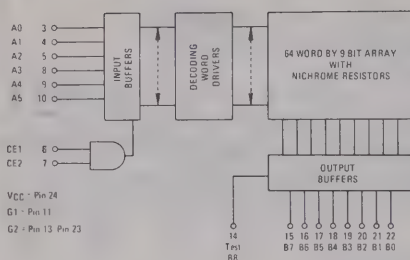


VCC - PIN 16
GND = PIN 8

SECTION 9. LOGIC/BLOCK DRAWINGS

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SEQUENCE

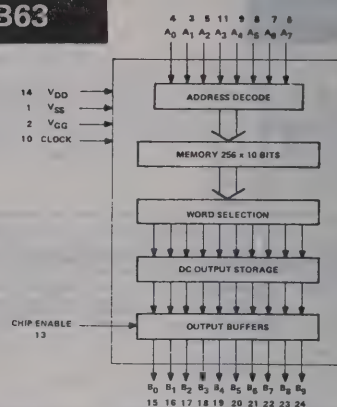
B61



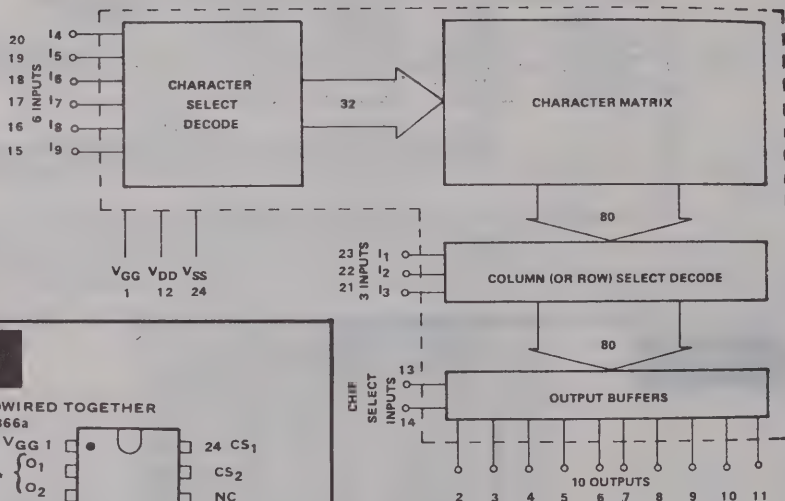
B62

PIN NO.	B62	B62a
1	I1	I1
2	I0	I0
3	CS1	CS1
4	CS2	CS2
5	CS3	CS3
6	CS4	I9
7	VGG	VGG
8	VDD	VDD
9	O8	NC
10	O7	NC
11	O6	O4
12	O5	O3
13	O4	O2
14	O3	O1
15	O2	NC
16	O1	NC
17	VSS	VSS
18	I8	I8
19	I7	I7
20	I6	I6
21	I5	I5
22	I4	I4
23	I3	I3
24	I2	I2

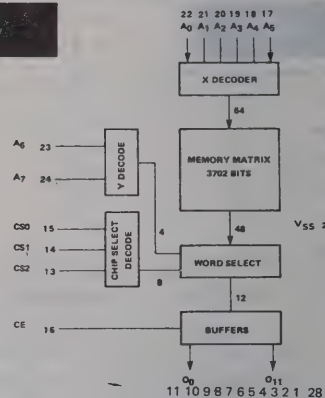
B63



B64

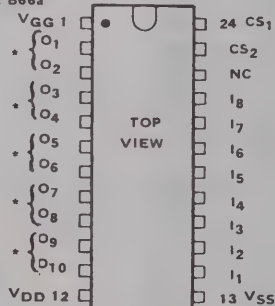


B65

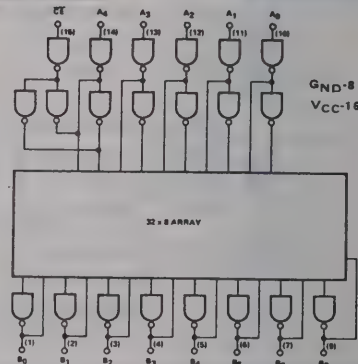


B66

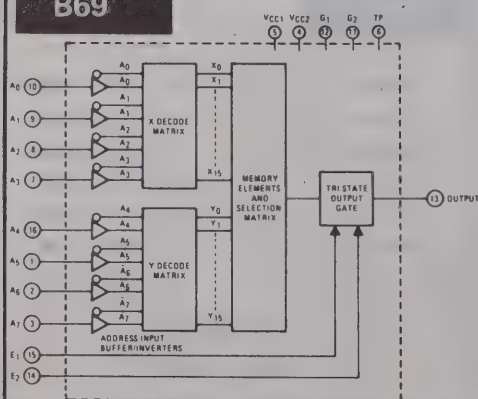
* HARDWIRED TOGETHER
FOR B66a



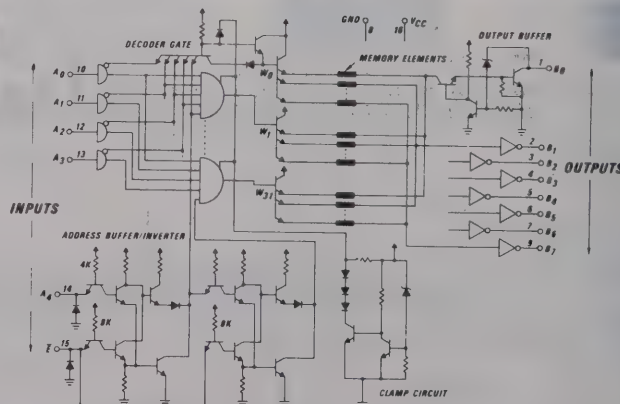
B67



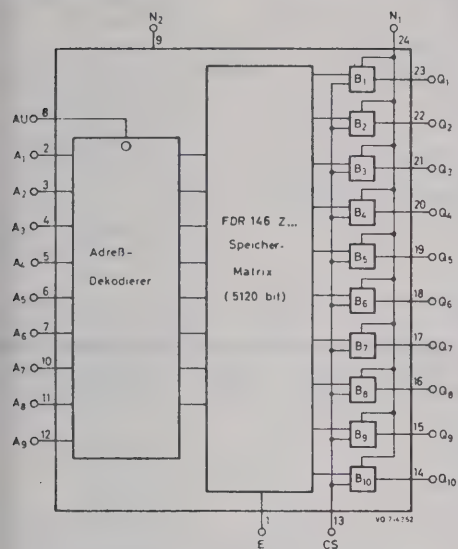
B69



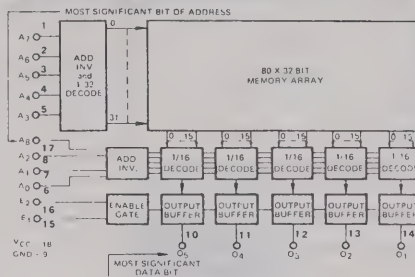
B70



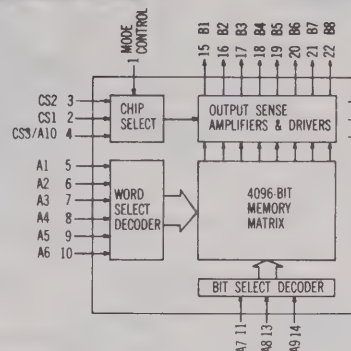
B71



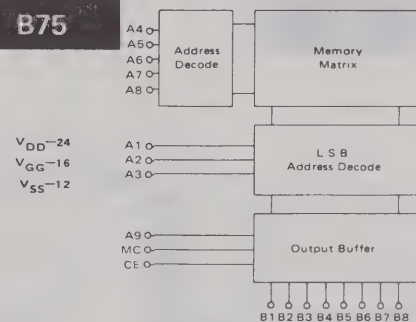
B72



B73

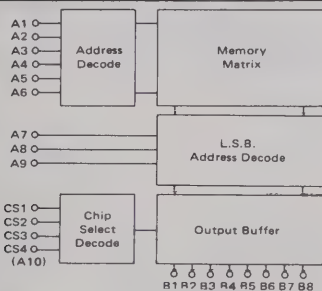


B75



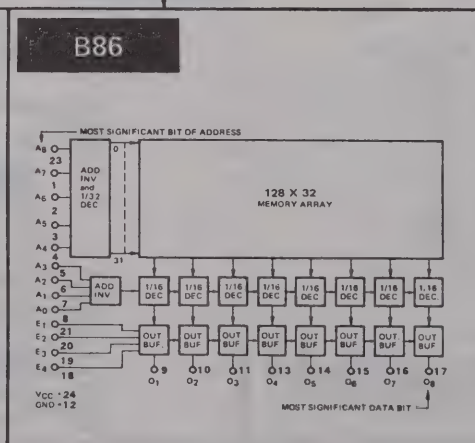
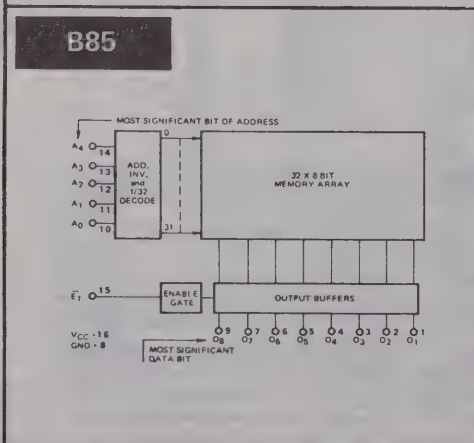
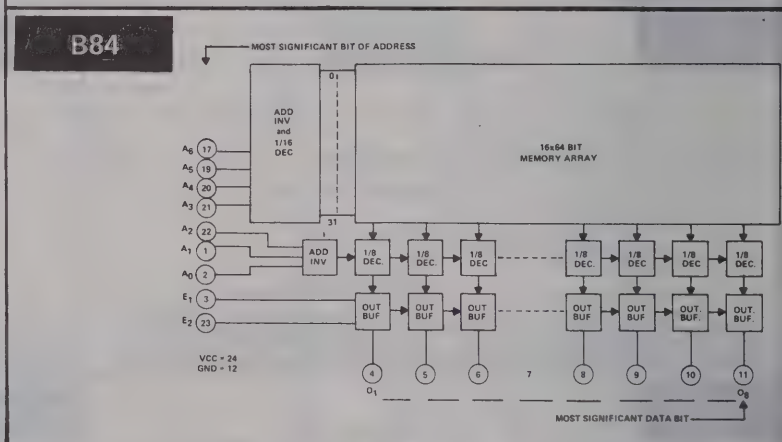
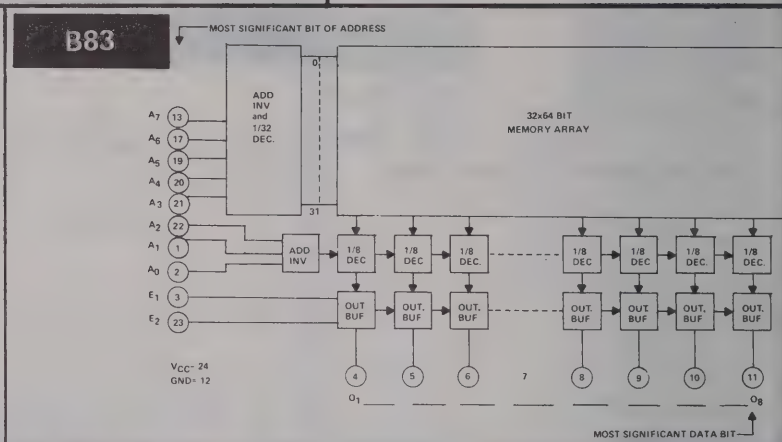
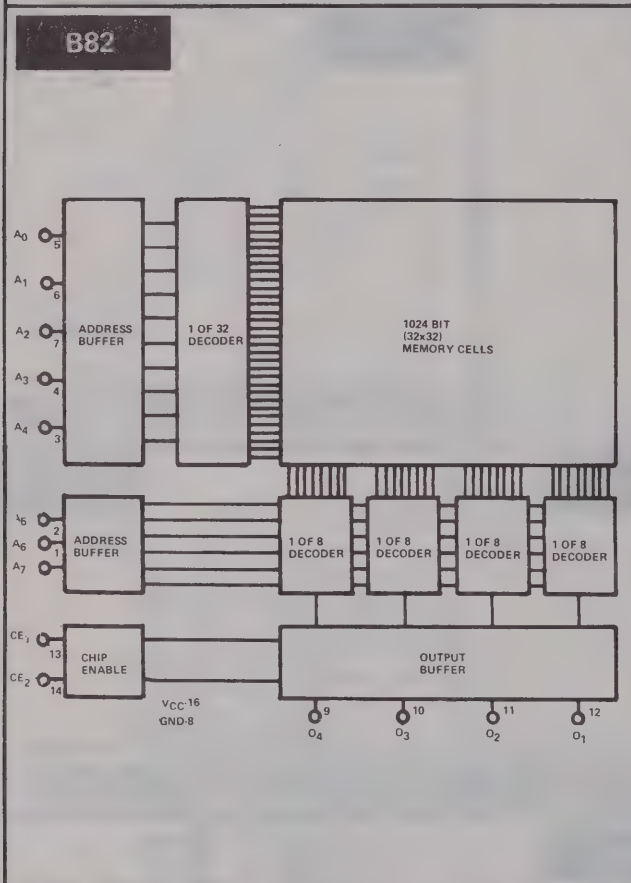
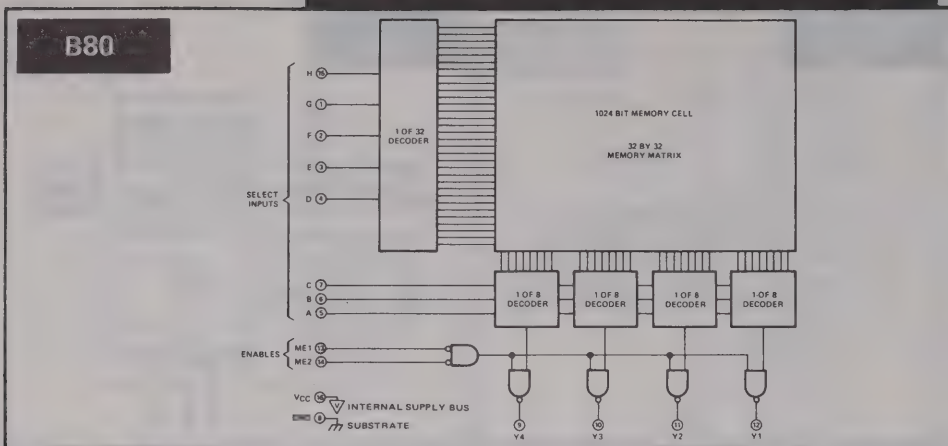
	A										B											
	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	7	8					
B75	3	2	1	21	20	19	18	17	13	4	5	6	7	8	9	10	11	CE	M			
B75a	3	2	1	21	20	19	18	17	13	4	6	8	10					14	1			

B76



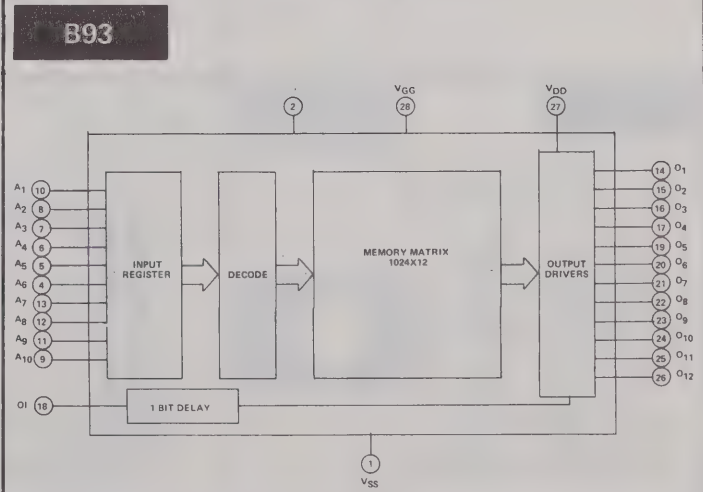
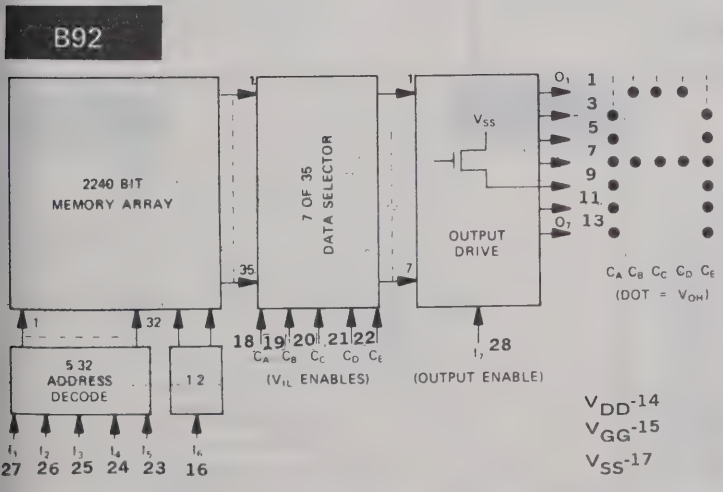
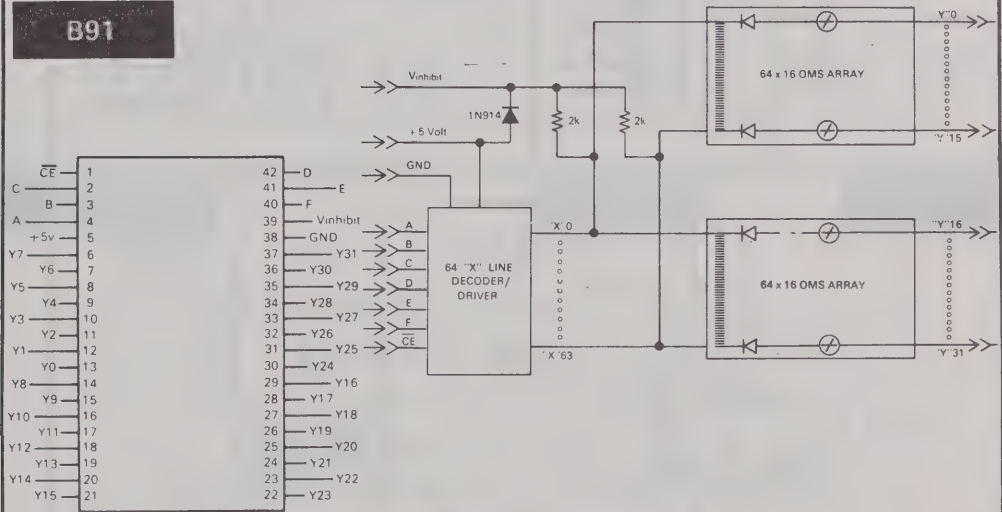
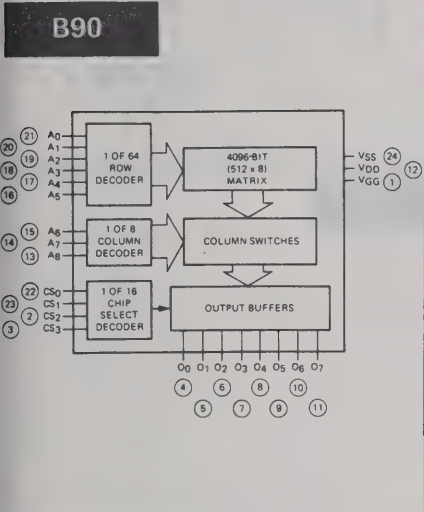
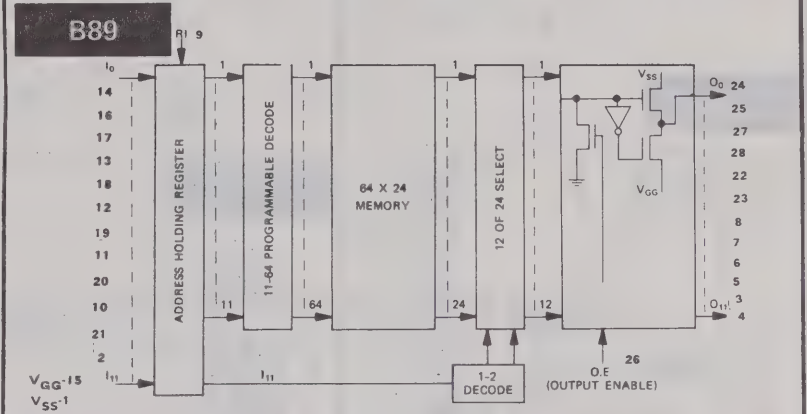
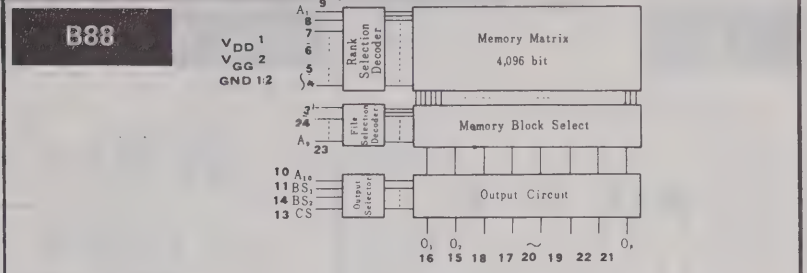
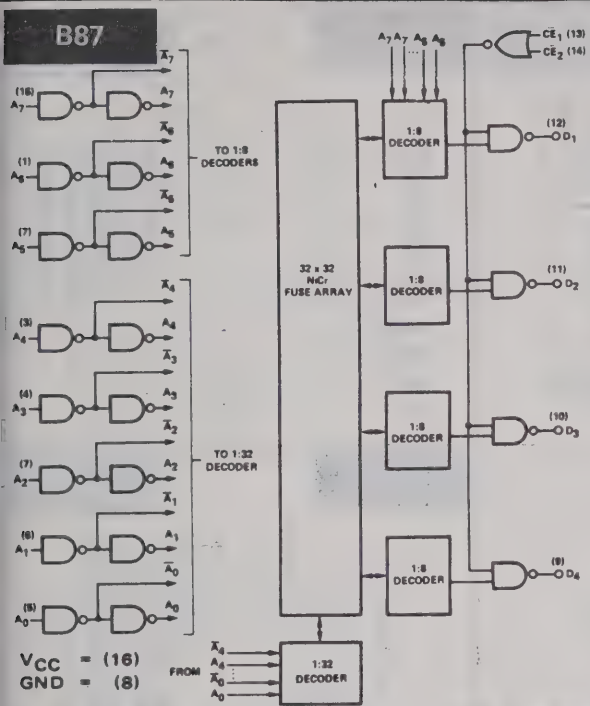
	A										B										CS			
	1	2	3	4	5	6	7	8	9	10	1	2	3	4	5	6	7	1	2	3	4			
B76	2	1	24	23	22	21	20	19	18		16	15	14	13	12	11	10	3	4	5	6			
B76a	2	1	24	23	22	21	20	19	18	6	14	13	12	11				3	4	5				

IN DRAWING NUMBER
SEQUENCE



SECTION 9. LOGIC/BLOCK DRAWINGS

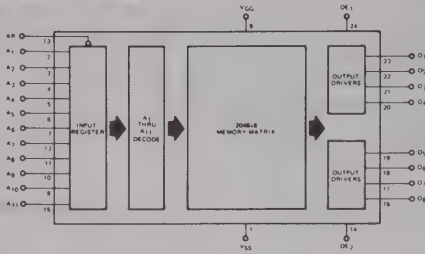
IN DRAWING NUMBER
SEQUENCE



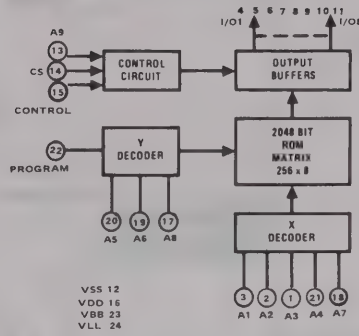
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

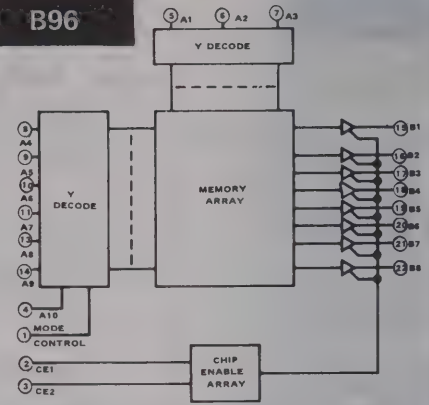
B94



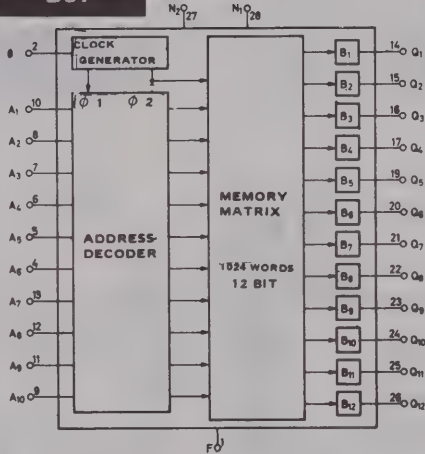
B95



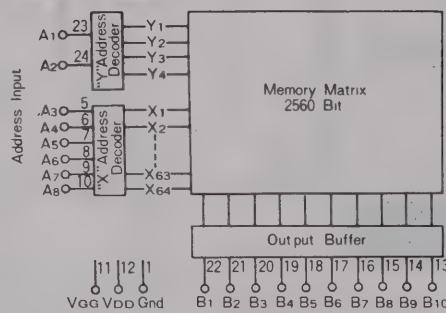
B96



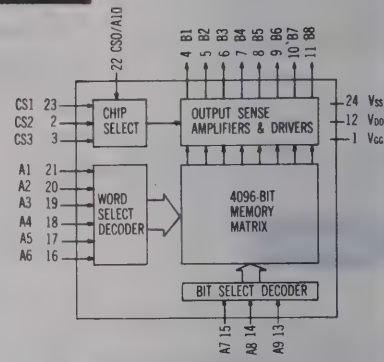
B97



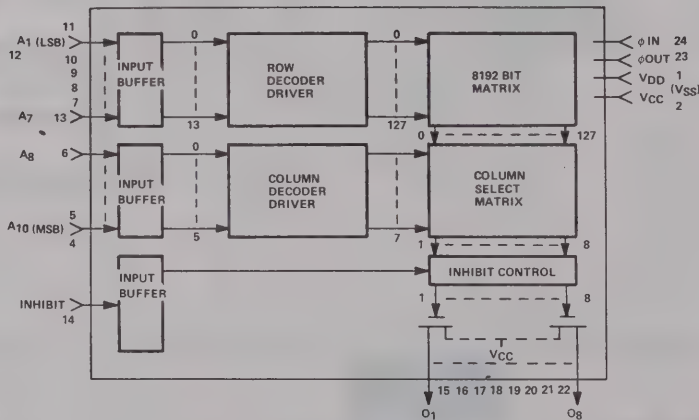
B98



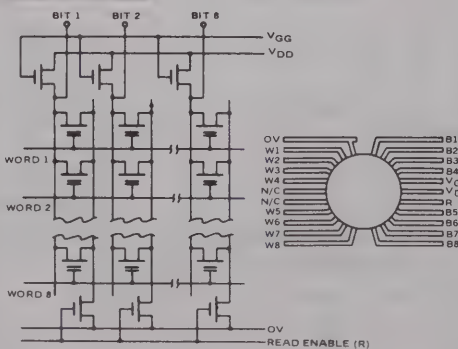
B99



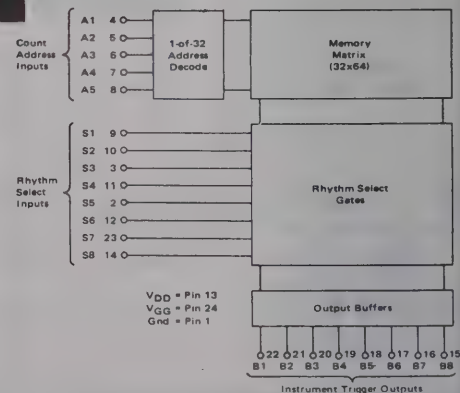
B100



B101



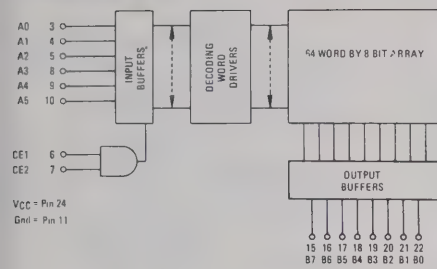
B102



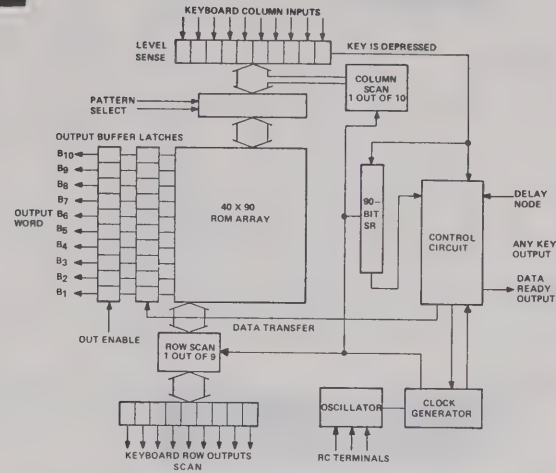
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

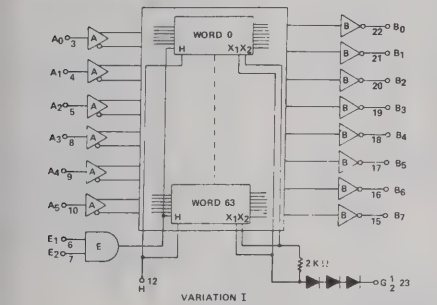
B103



B104

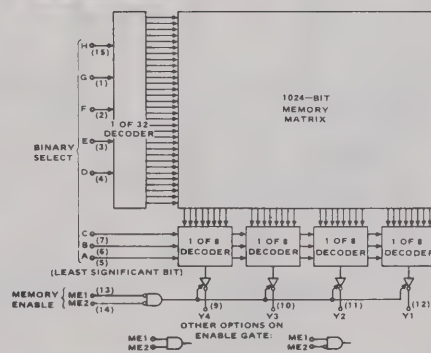


B105

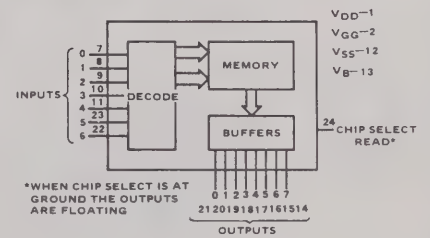


PIN NO.	FUNCTION	PIN NO.	FUNCTION	PIN NO.	FUNCTION
1 - 5	Determined by the options selected by the customer	17	C1 (Input from keyboard)	29	S2 (Mode Control 2)
6	B9 (Output data bit 9)	18	C2	30	VSS
7	B8	19	C3	31	Delay Node
8	B7	20	C4	32	R9 (Output to keyboard)
9	B6	21	C5	33	R8
10	B5	22	C6	34	R7
11	B4	23	C7	35	R6
12	B3	24	C8	36	R5
13	B2	25	C9	37	R4
14	B1	26	C10	38	R3
15	VDD	27	VGG	39	R2
16	Data Ready Strobe	28	S1 (Mode Control 1)	40	R1

B106



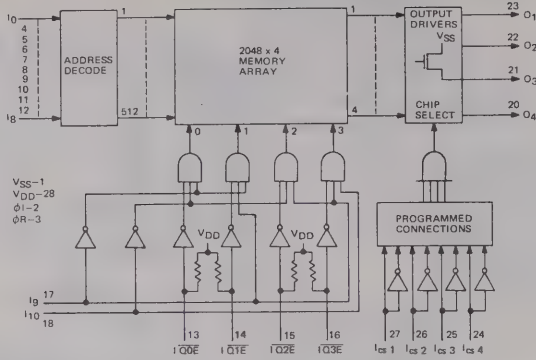
B107



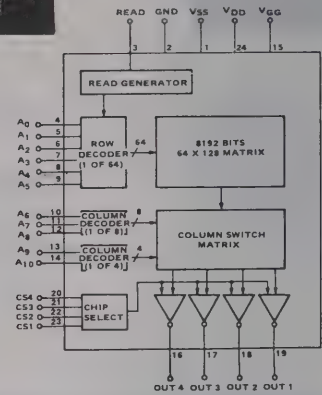
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

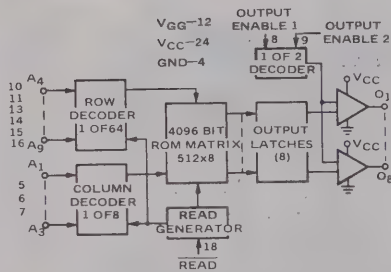
B110



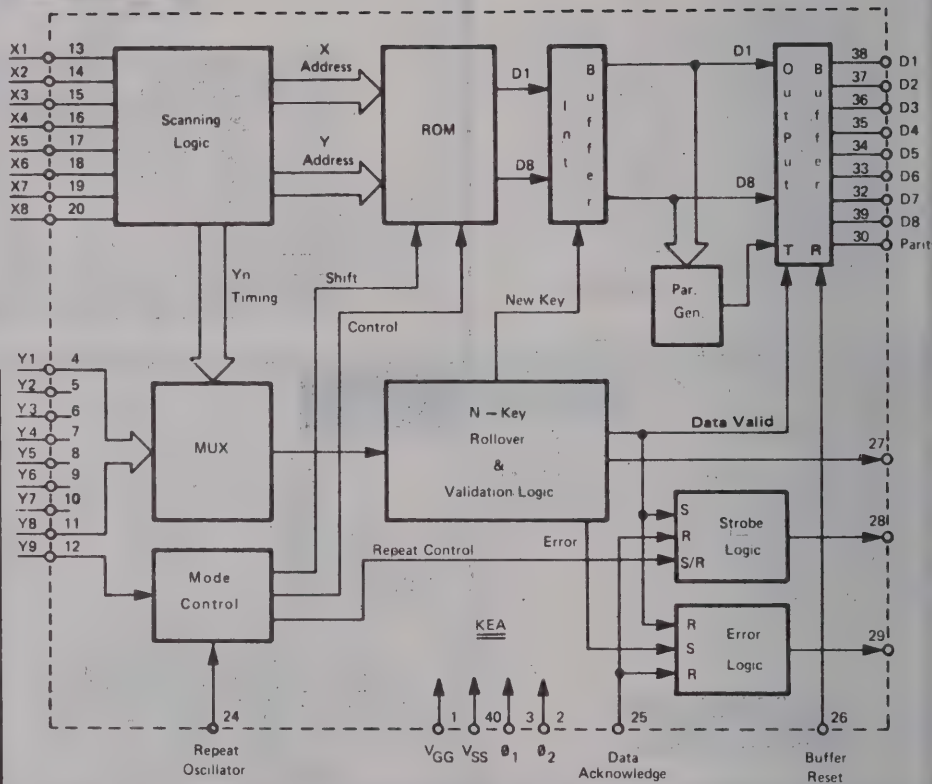
B111



B112



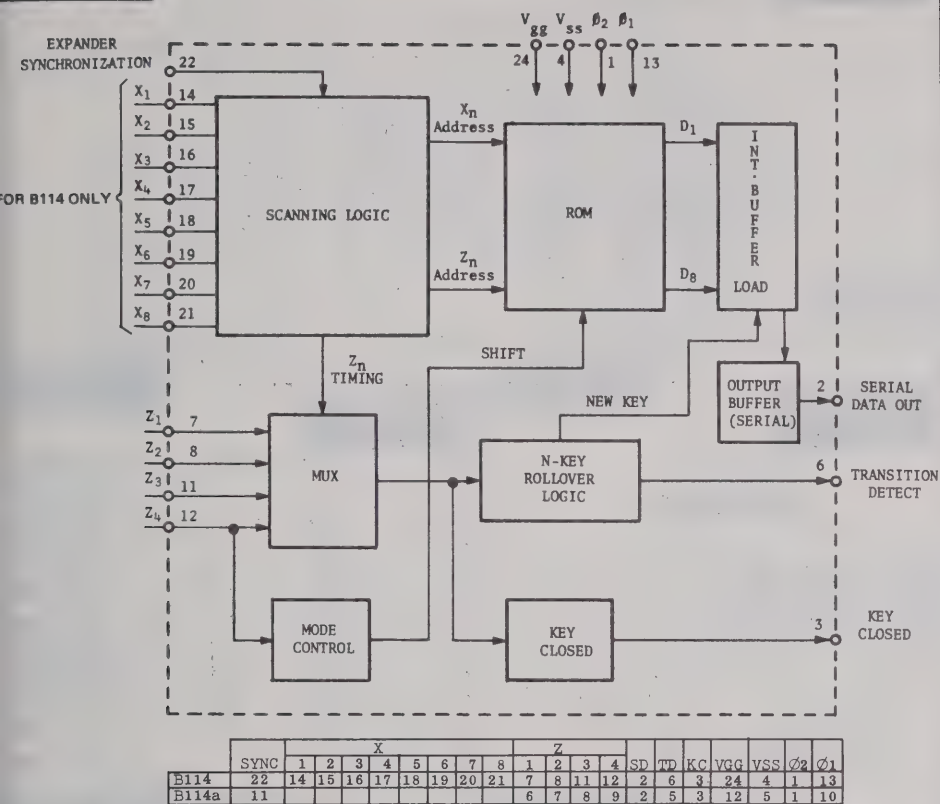
B113



SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

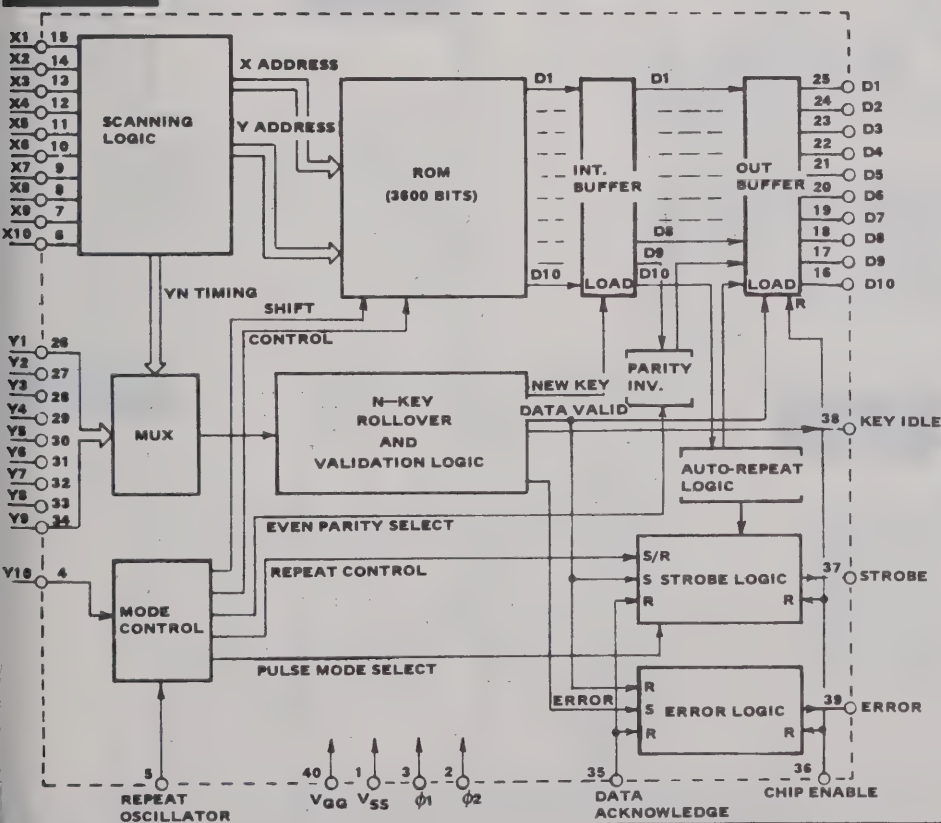
B114



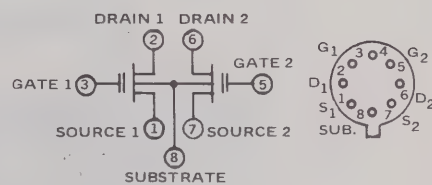
B116



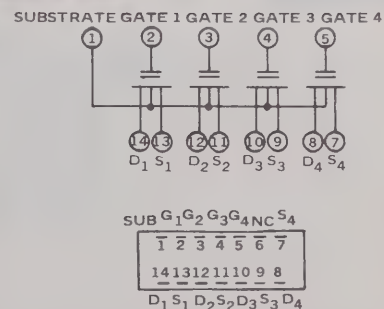
B115



B117



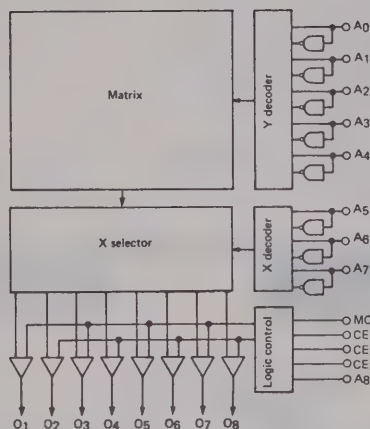
B118



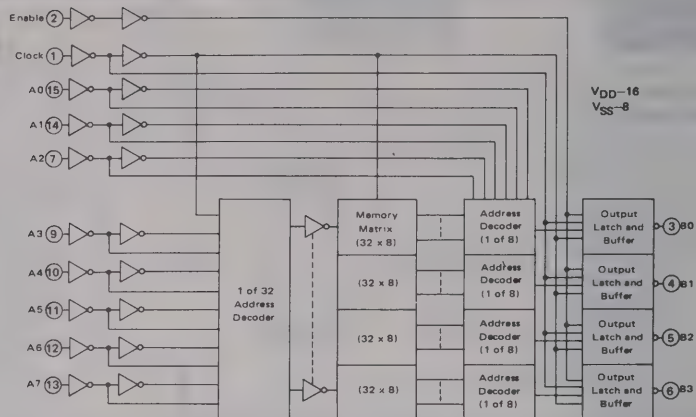
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

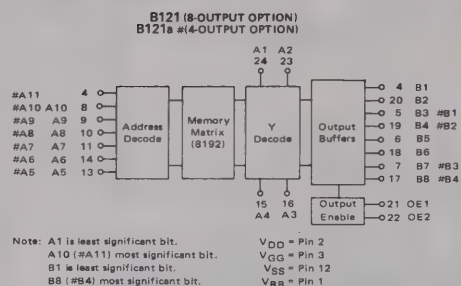
B119



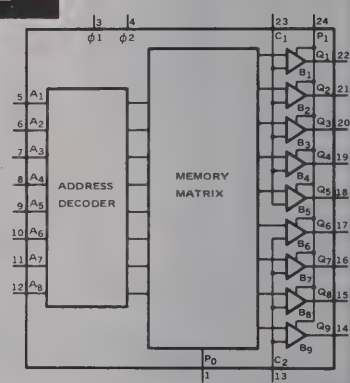
B120



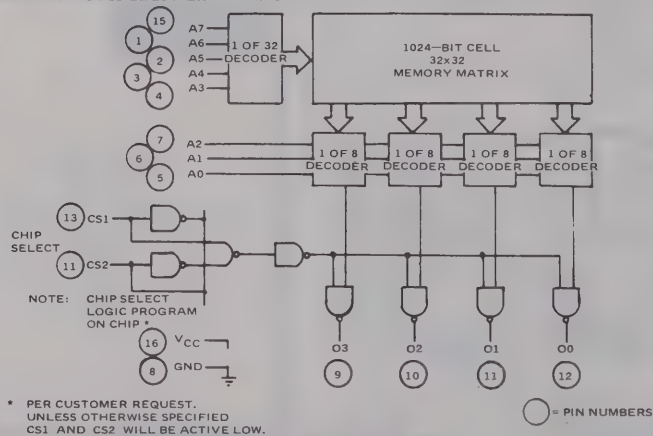
B121



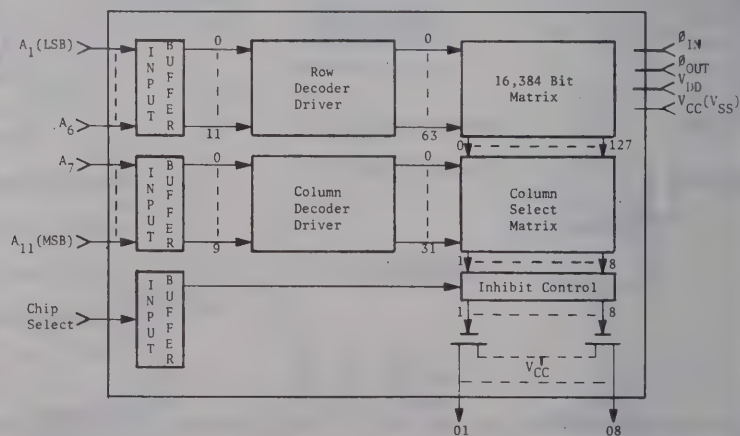
B122



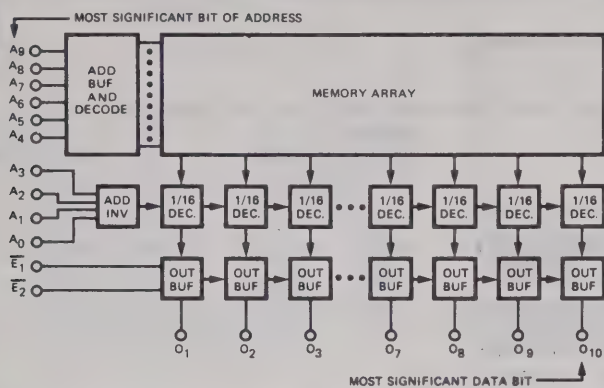
B123



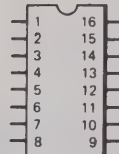
B124



B125

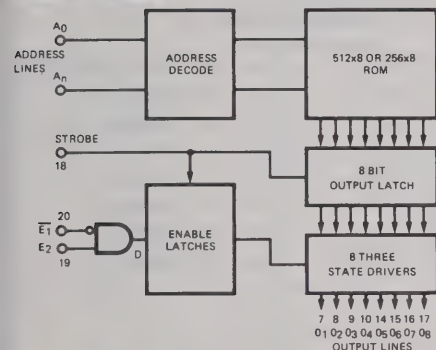


B126

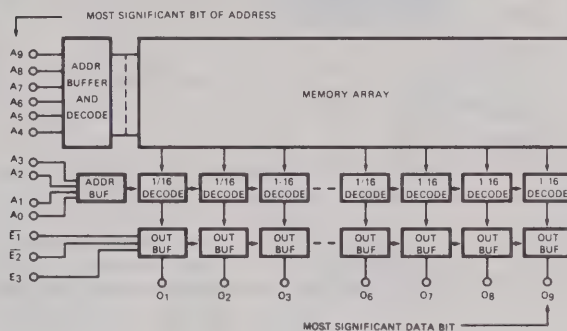


	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	REMARKS
B126a	A6	A5	A4	A3	A0	A1	A2	GND	O4	O3	O2	O1	E1	A8	A7	VCC	ENABLE=E1, LOW
B126b	A6	A5	A4	A3	A0	A1	A2	GND	O5	O4	O3	O2	O1	E1	A7	VCC	ENABLE=E1, LOW
B126c	A6	A5	A4	A3	A0	A1	A2	GND	O4	O3	O2	O1	E1	E2	A7	VCC	ENABLE=E1, LOW and E2, LOW
B126d	O1	O2	O3	O4	O5	O6	O7	GND	O8	A0	A1	A2	A3	A4	E1	VCC	ENABLE=E1, LOW

B127

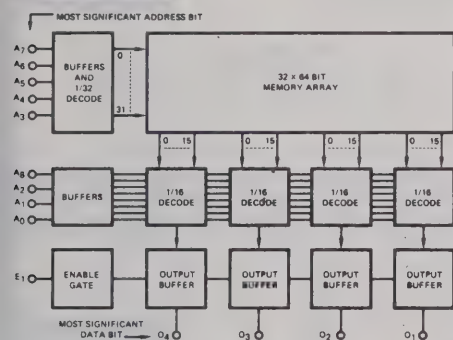


B128

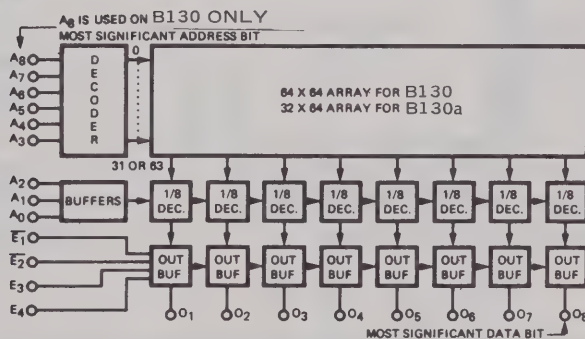


B129

V_{CC} = 16
GND = 8



B130

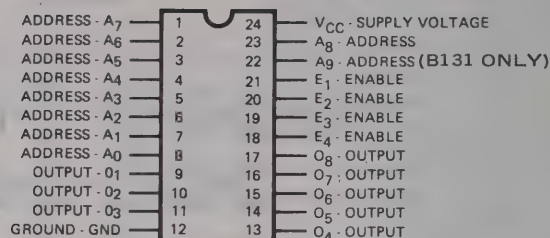
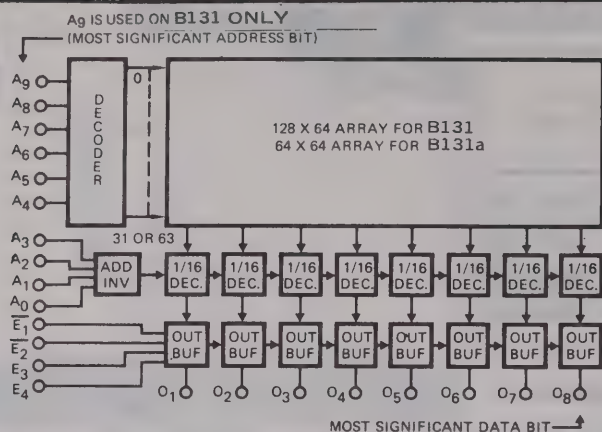


ADDRESS - A7	1	24	VCC - SUPPLY VOLTAGE
ADDRESS - A6	2	23	A8 - ADDRESS (B130 ONLY)
ADDRESS - A5	3	22	FOR FACTORY USE ONLY
ADDRESS - A4	4	21	E1 - ENABLE
ADDRESS - A3	5	20	E2 - ENABLE
ADDRESS - A2	6	19	E3 - ENABLE
ADDRESS - A1	7	18	E4 - ENABLE
ADDRESS - A0	8	17	O8 - OUTPUT
OUTPUT - O1	9	16	O7 - OUTPUT
OUTPUT - O2	10	15	O6 - OUTPUT
OUTPUT - O3	11	14	O5 - OUTPUT
GROUND - GND	12	13	O4 - OUTPUT

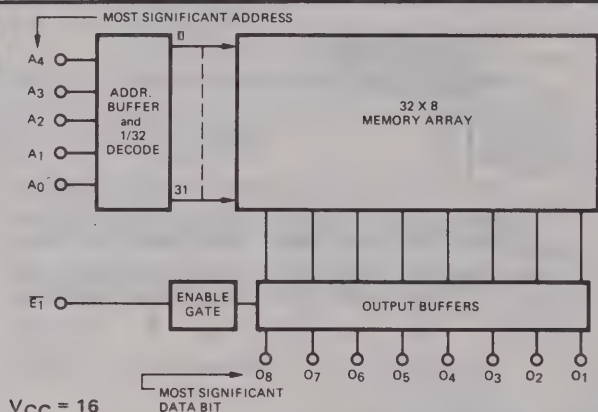
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
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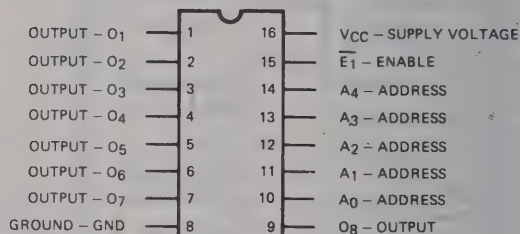
B131



B132



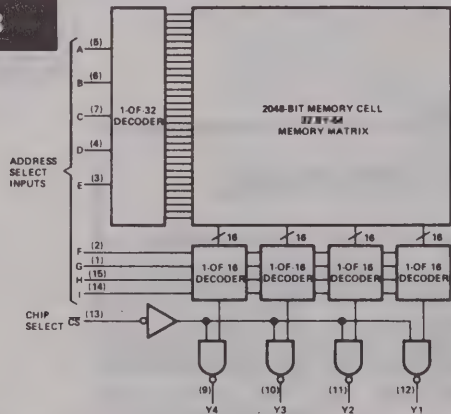
PIN CONFIGURATION



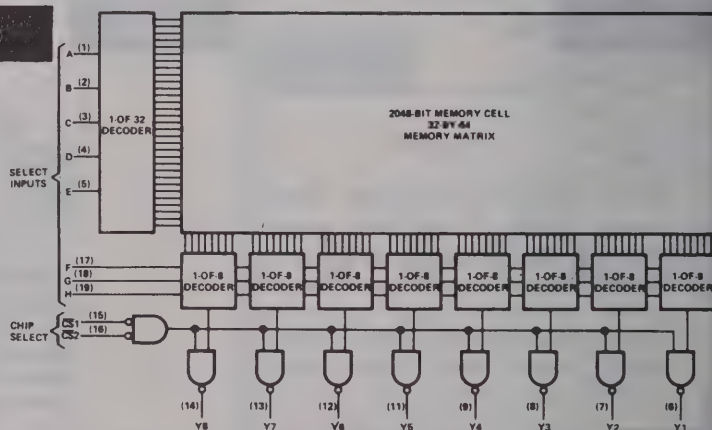
LOW = ENABLE

V_{CC} = 16
GND = 8

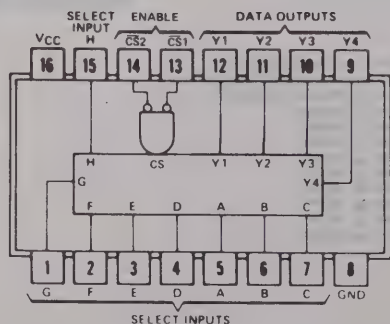
B133



B134



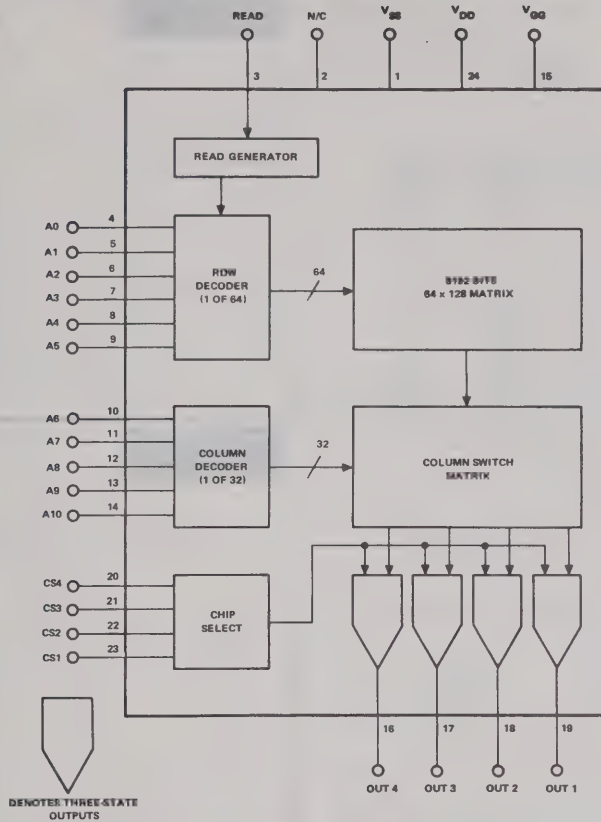
B135



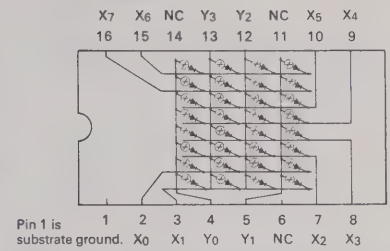
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

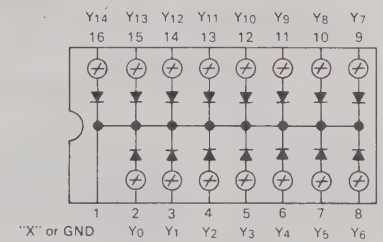
B136



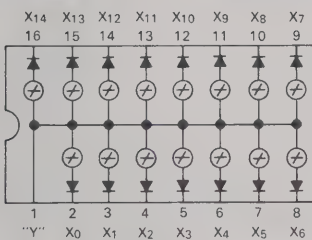
B137



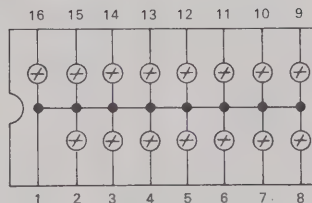
B138



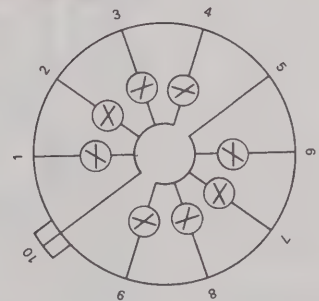
B139



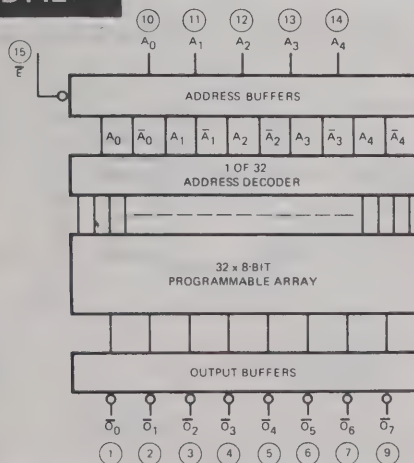
B140



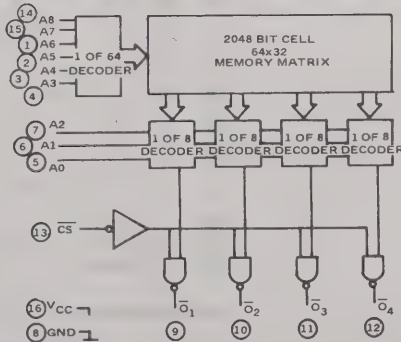
B141



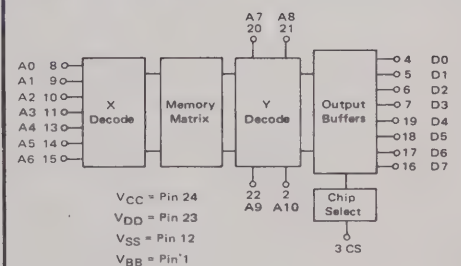
B142



B143



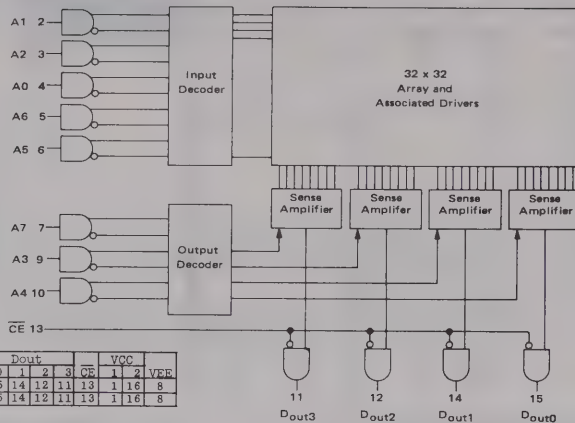
B144



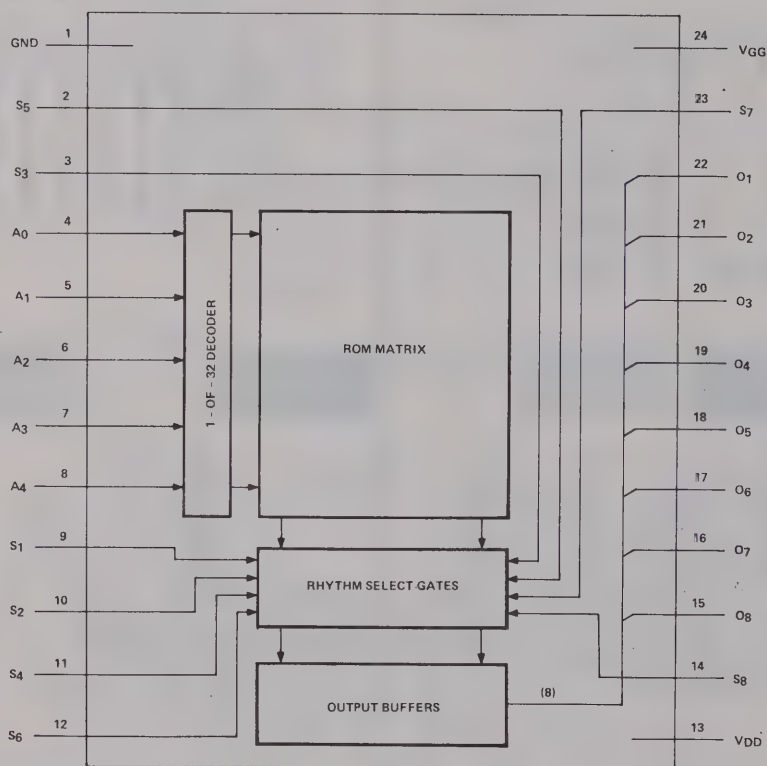
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

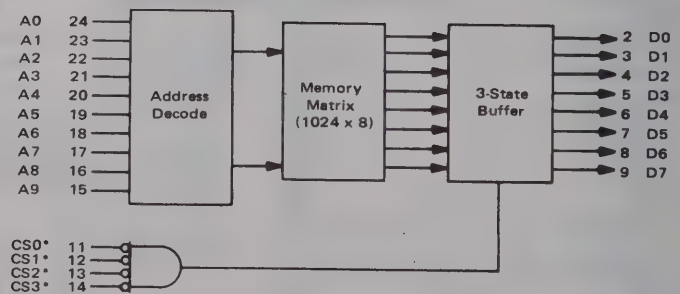
B145



B146



B147



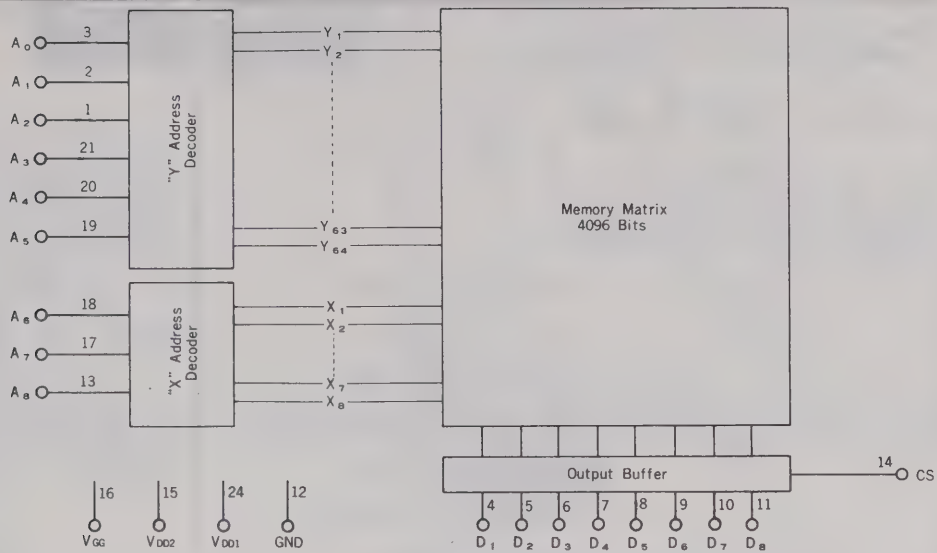
* Active level defined by the customer.

VCC = Pin 12
Gnd = Pin 1

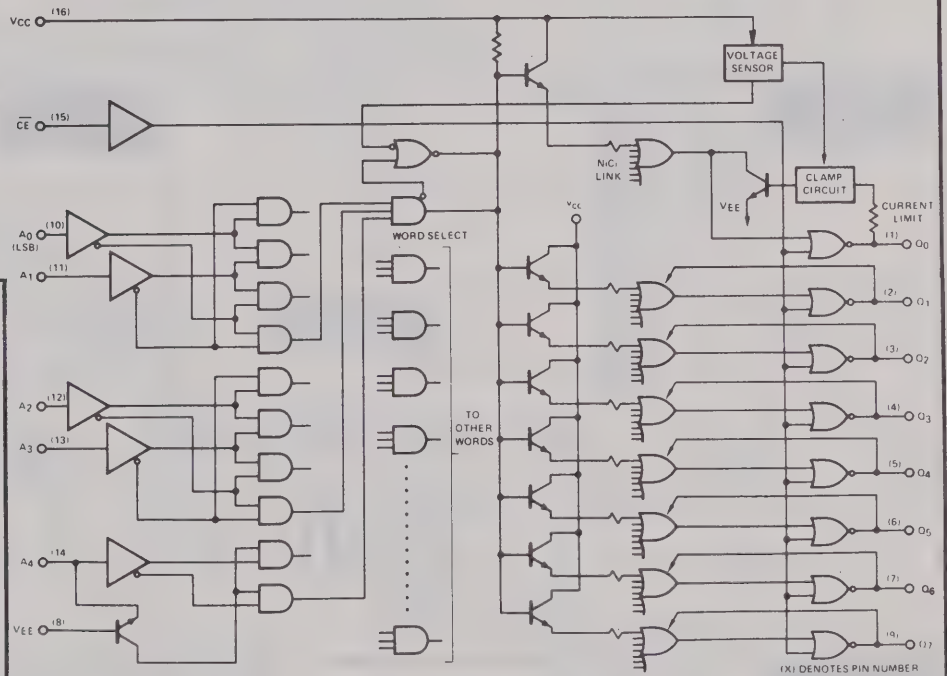
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

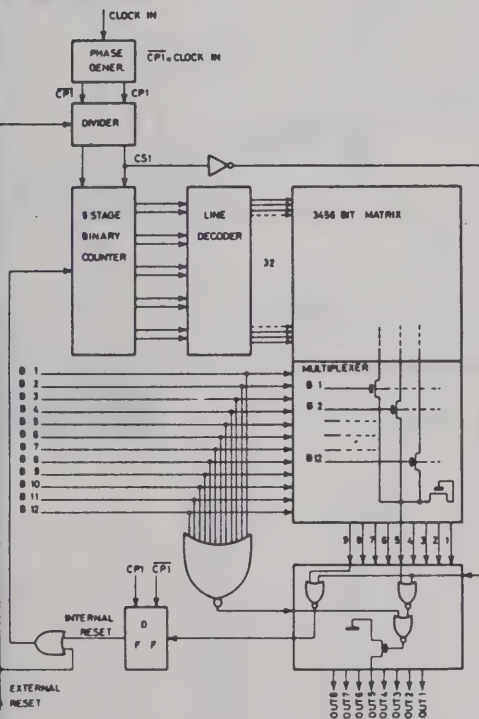
B148



B149



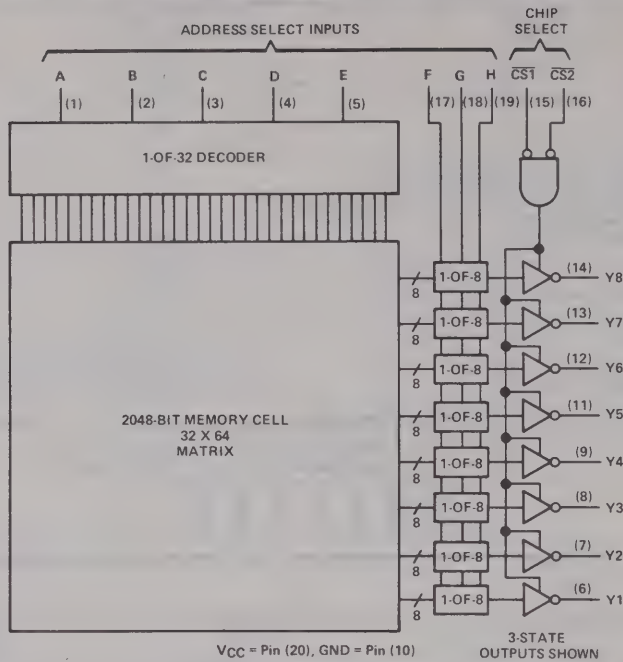
B150



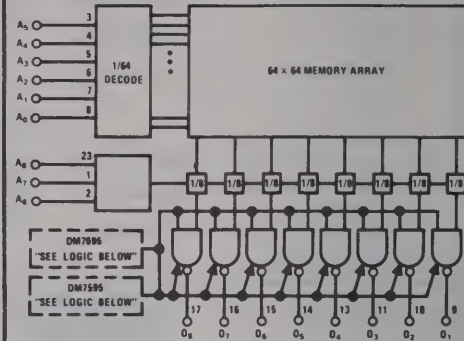
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

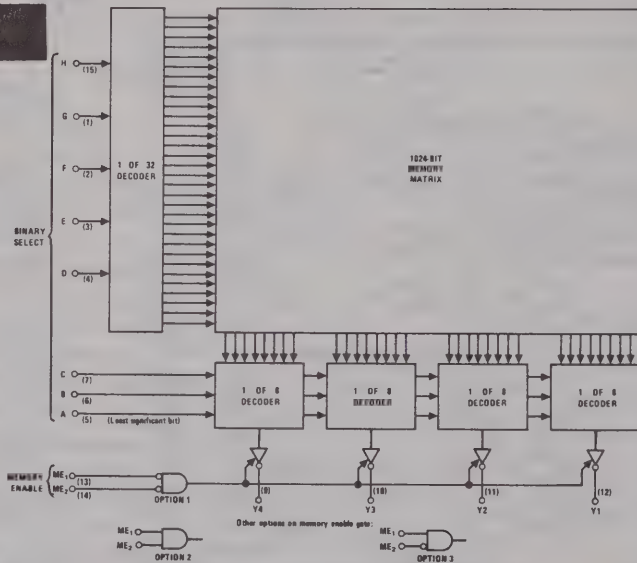
B151



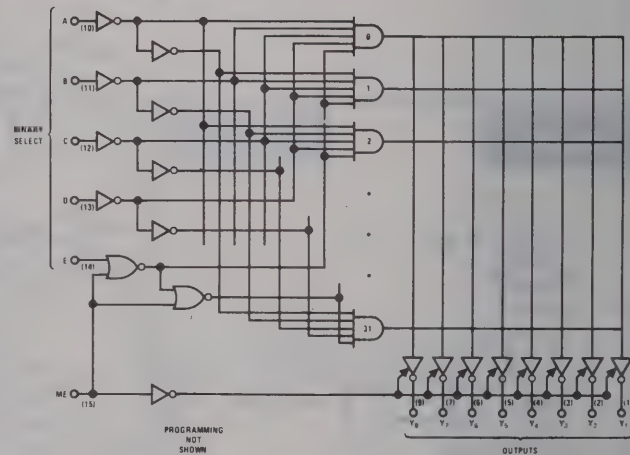
B152



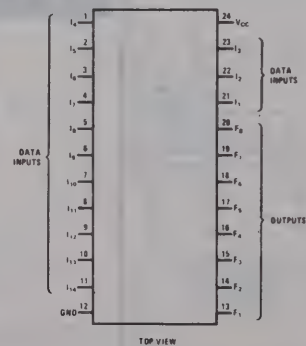
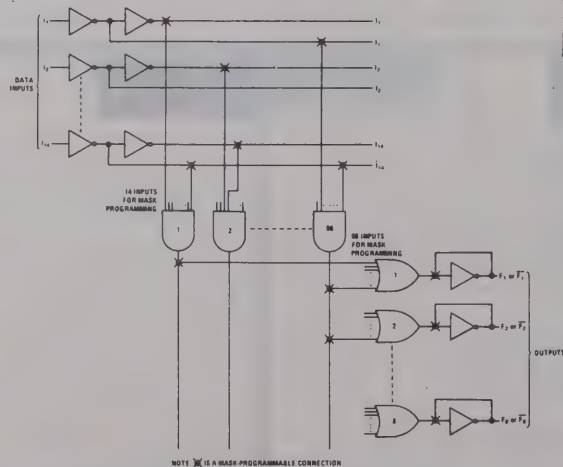
B153



B154



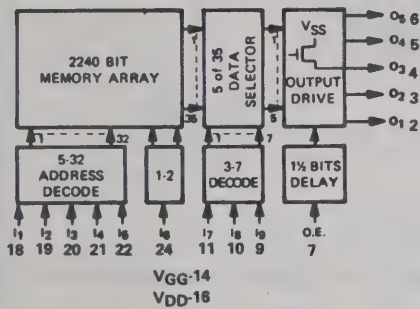
B155



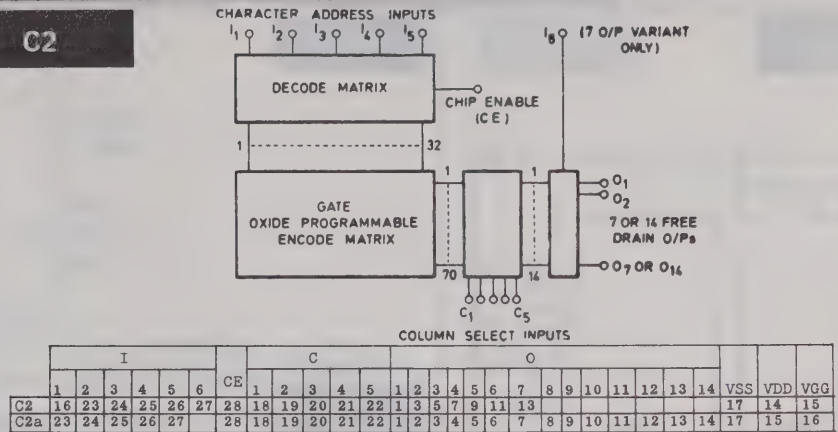
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

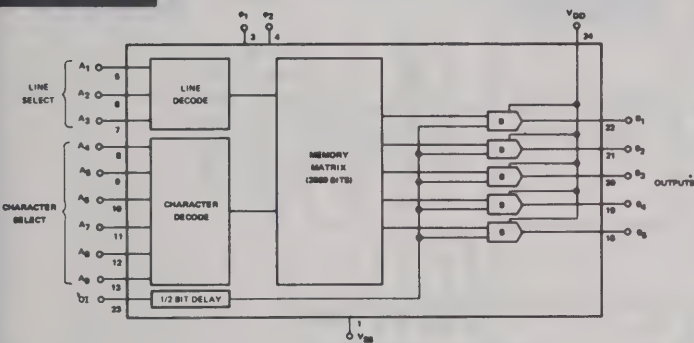
C1



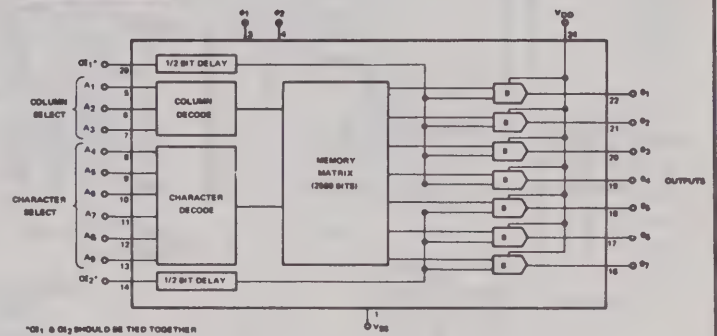
C2



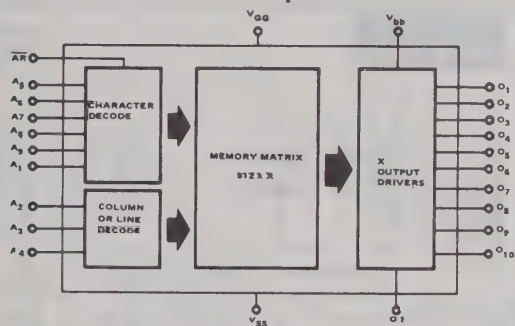
C3



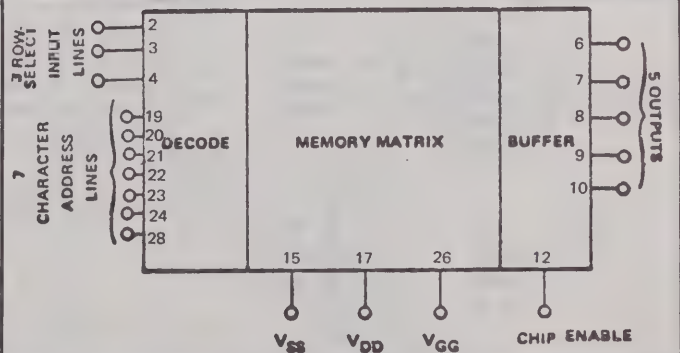
C4



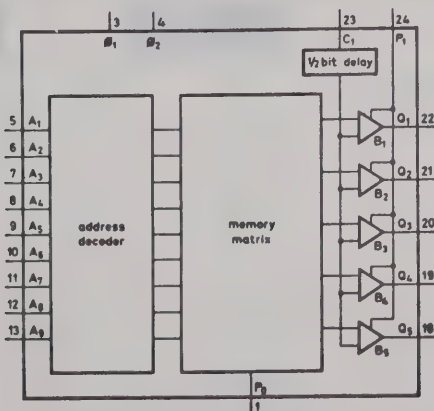
C5



C6



C7

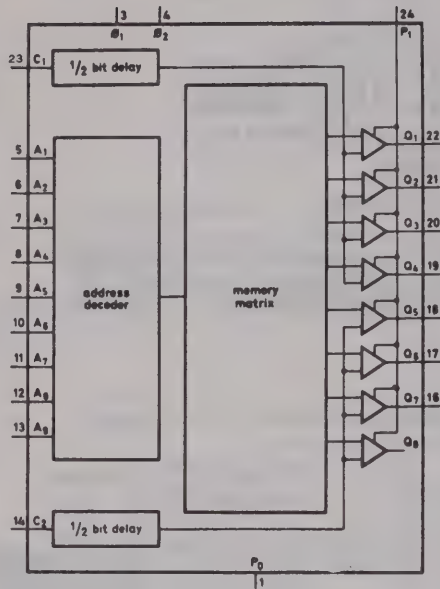


PAIRED DEVICES
C7 FDR11621/FDR11622

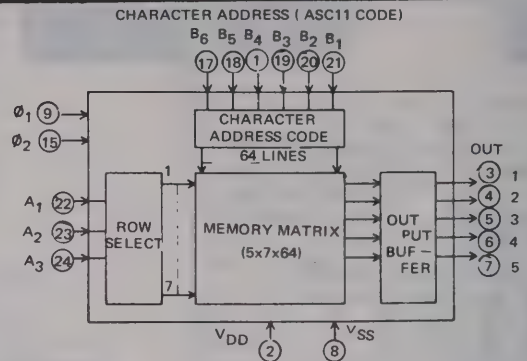
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

C8

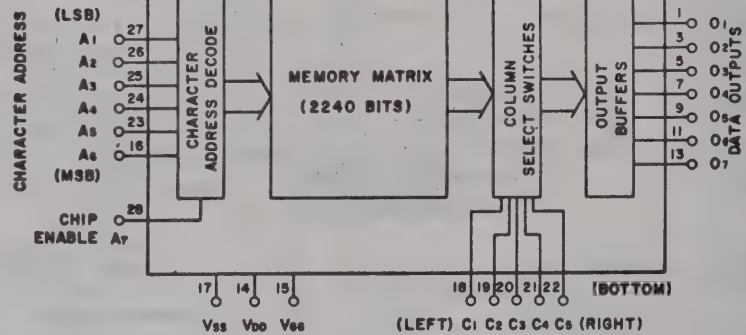


C9

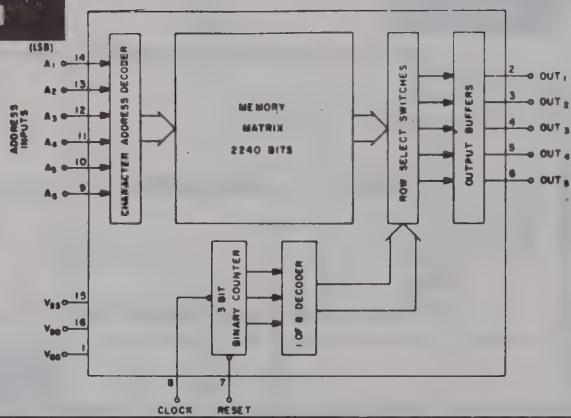


C10

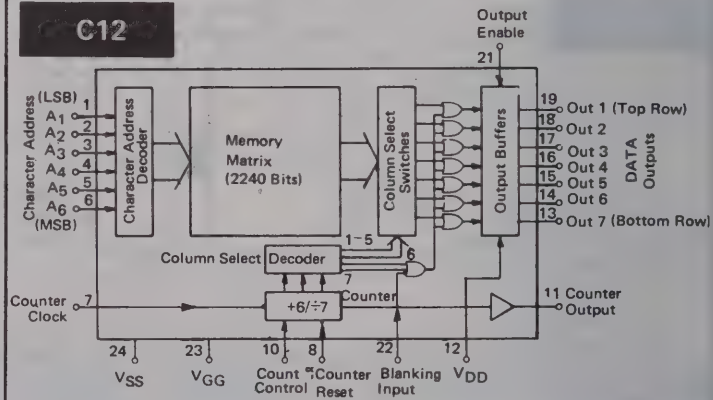
C10a-14 OUTPUTS USED



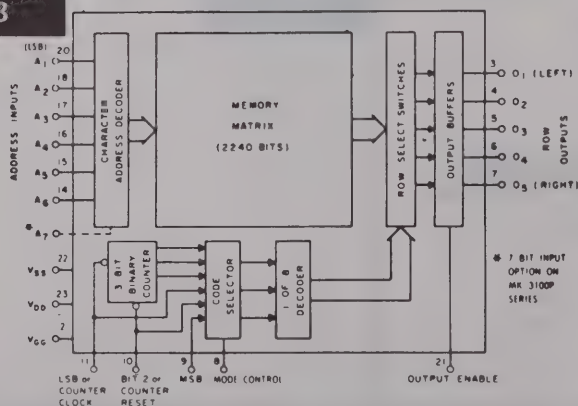
C11



C12



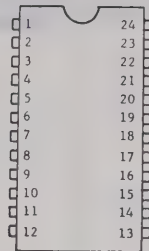
C13



SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

C14



		PIN NUMBERS																								REMARKS
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
C14	R1	R2	NC	R3	A4	A5	I	DC	OUT	NC	CE	B1	OND	B2	B3	NC	NC	B4	B5	A3	A2	NC	NC	A1	VCC	CM2900-0/CM2900-02 PAIRED DEVICES
C14a	L1	L2	NC	NC	NC	NC	B1	B2	B3	B4	B5	VSS	NC	CE	VGG	A0	A1	A2	A3	A4	A5	NC	NC	VDD		
C14b	S0	B7	B6	B5	B4	B3	B2	B1	O1	O2	O3	GND	O4	O5	O6	O7	NC	NC	E2	E1	S3	S2	S1	VCC	S0, S1, S2, S3 USED FOR CHARACTER SCAN	
C14c	S0	B7	B6	B5	B4	B3	B2	B1	O1	O2	O3	GND	O4	O5	O6	O7	O8	O9	E2	E1	S3	S2	S1	VCC		

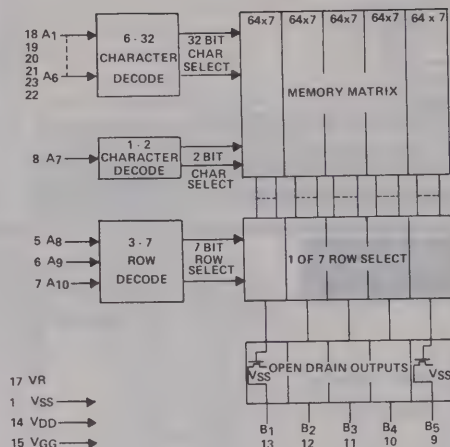
C15

	ADDRESS										OUT								CE	VDD	VDD2	VCC	VGG	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18						
C15	14	15	16	17	18	19	20	21	22	4	5	6	7	8						11	12		24	1
C15a	14	15	16	17	18	19	20	21	22	4	5	6	7	8						10	12	11	24	1
C15b	14	15	16	17	18	19	20	21	22	10	9	8	7	6	5	4	3			1	12	11	24	23

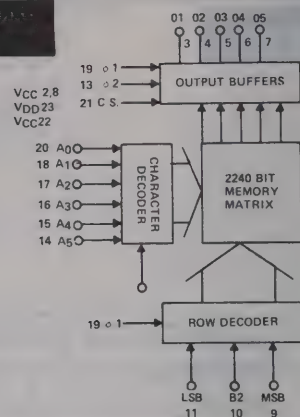
C21

PIN NO.	FUNCTION
1	O8
2	O7
3	O6
4	O5
5	O4
6	O3
7	O2
8	O1
9	VDD
10	VGG
11	GND
12	I7
13	I6
14	I5
15	I4
16	I3
17	I2
18	I1
19	O30
20	O29
21	O28
22	O27
23	O26
24	O25
25	O24
26	O23
27	O22
28	O21
29	O20
30	O19
31	O18
32	O17
33	O16
34	O15
35	O14
36	O13
37	O12
38	O11
39	O10
40	O9

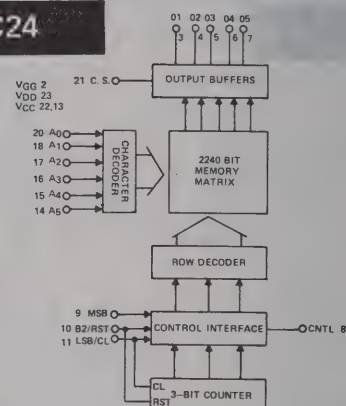
C22



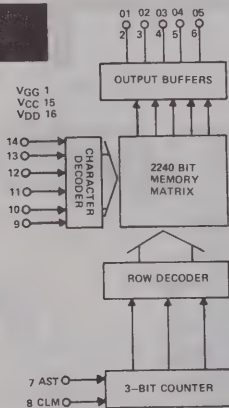
C23



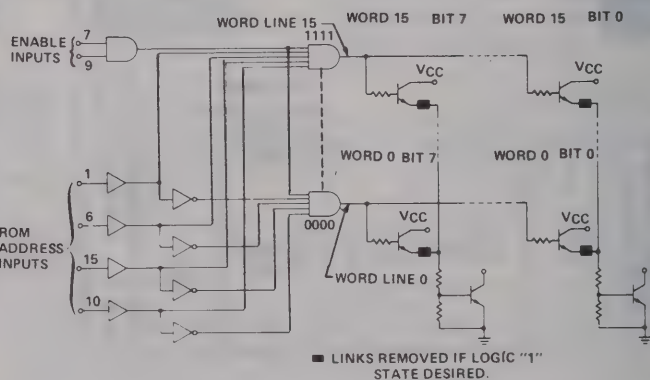
C24



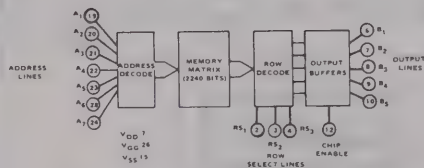
C25



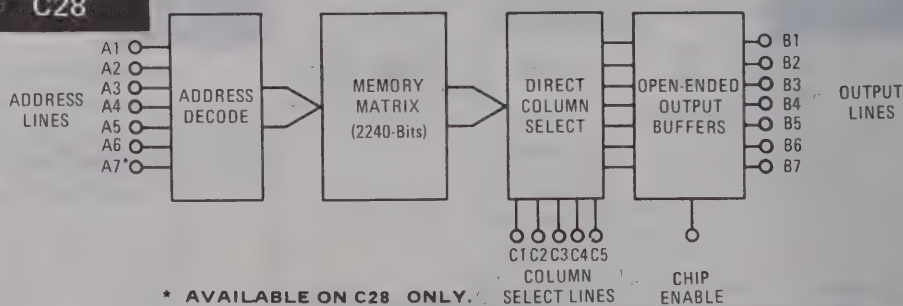
C26



C27



C28



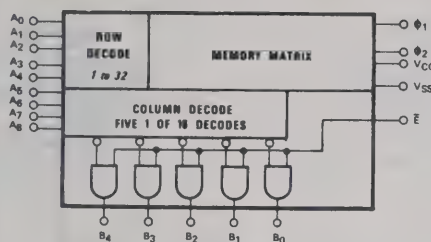
* AVAILABLE ON C28 ONLY.

	A							B							C					CE	VSS	VGG	VDD
	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5				
C28	23	22	21	20	19	13	24	4	5	6	7	8	9	10	14	15	16	17	18	3	1	2	12
C28a	27	26	25	24	23	16	1	3	5	7	9	11	13	18	19	20	21	22	28	17	15	14	
C28b	27	26	25	24	23	16	18	1	3	5	7	9	11	13	18	19	20	21	22		17	15	14

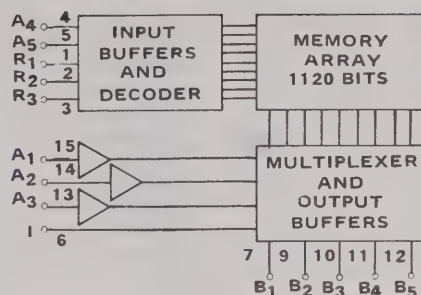
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

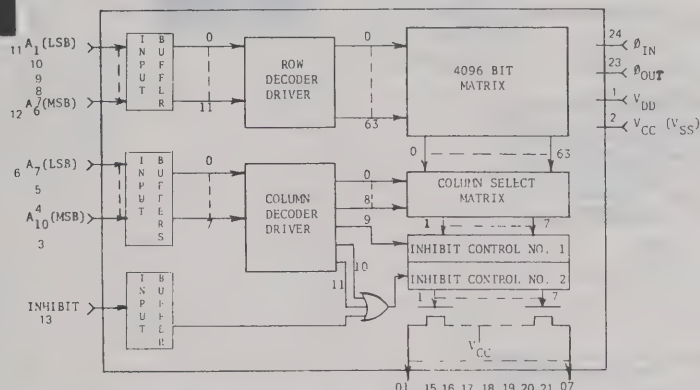
C29



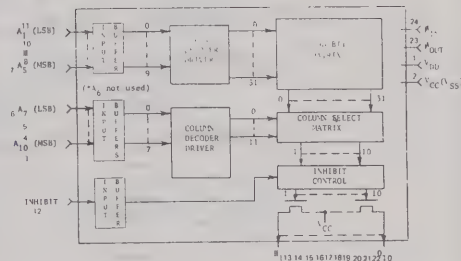
C30



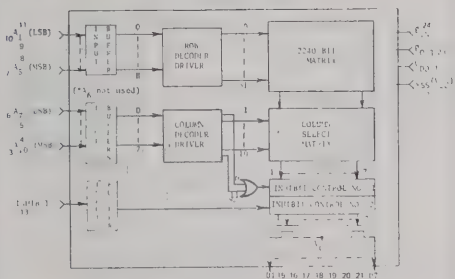
C32



C33



C34



C35

PIN ASSIGNMENTS

1	VSS
2	VGG
3	A0 Input
4	A1 Input
5	A2 Input
6	A3 Input
7	A4 Input
8	A5 Input
9	NC
10	A6 Input
11	Q1 Strobe Input
12	NC
13	A7 Input
14	Q2 Strobe Input
15	NC
16	NC
17	Chip Select
18	A8 Input
19	VDD
20	B0 Output
21	NC
22	B1 Output
23	NC
24	B2 Output
25	NC
26	B3 Output
27	NC
28	B4 Output

C36

PIN ASSIGNMENTS

1	VSS
2	VGG
3	A0 Input
4	NC
5	NC
6	A1 Input
7	A2 Input
8	A3 Input
9	A4 Input
10	A5 Input
11	A6 Input
12	NC
13	NC
14	NC
15	Q1 Strobe Input
16	A7 Input
17	Q2 Strobe Input
18	NC
19	NC
20	Chip Select
21	V8 Input
22	NC
23	VDD
24	B0 Output
25	NC
26	B1 Output
27	NC
28	B2 Output
29	NC
30	NC
31	NC
32	B3 Output
33	NC
34	B4 Output

C37

PIN ASSIGNMENTS

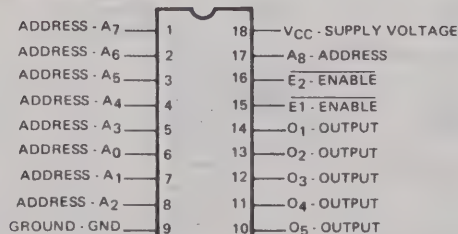
1	VSS
2	VGG
3	A0 Input
4	A1 Input
5	A2 Input
6	A3 Input
7	A4 Input
8	A5 Input
9	NC
10	A6 Input
11	Q1 Strobe Input
12	NC
13	A7 Input
14	Q2 Strobe Input
15	S0 Input
16	S1 Input
17	S2 Input
18	VDD
19	B0 Output
20	B1 Output
21	B2 Output
22	B3 Output
23	B4 Output
24	B5 Output
25	B6 Output
26	B7 Output
27	B8 Output
28	NC

C38

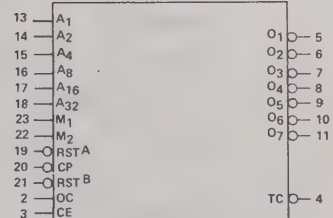
PIN ASSIGNMENTS

1	VSS
2	VGG
3	A0 Input
4	NC
5	NC
6	A1 Input
7	A2 Input
8	A3 Input
9	A4 Input
10	A5 Input
11	A6 Input
12	NC
13	NC
14	NC
15	Q1 Strobe Input
16	A7 Input
17	Q2 Strobe Input
18	S0 Input
19	S1 Input
20	S2 Input
21	VDD
22	NC
23	B0 Output
24	B1 Output
25	B2 Output
26	B3 Output
27	B4 Output
28	NC
29	B5 Output
30	NC
31	B6 Output
32	B7 Output
33	B8 Output
34	NC

C39



C40

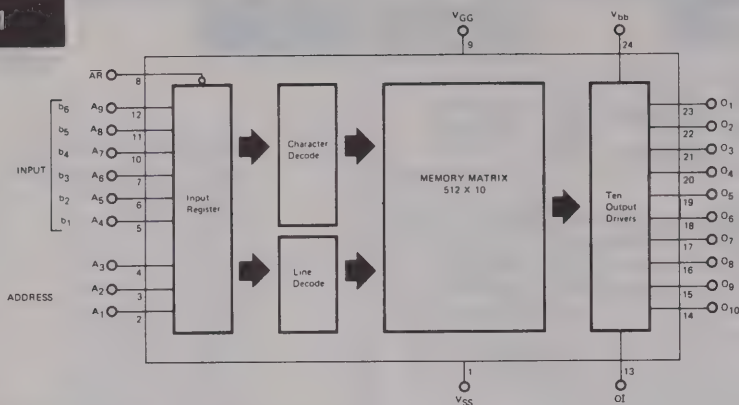


VCC = PIN 24
VGG = PIN 1
VDD = PIN 12

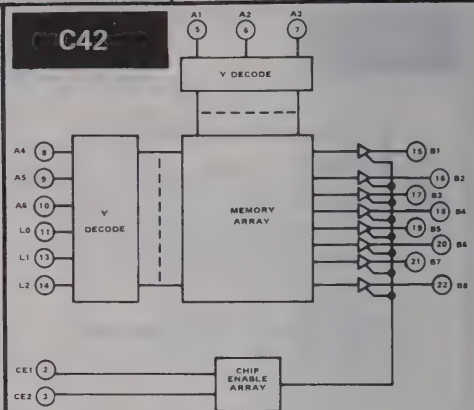
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

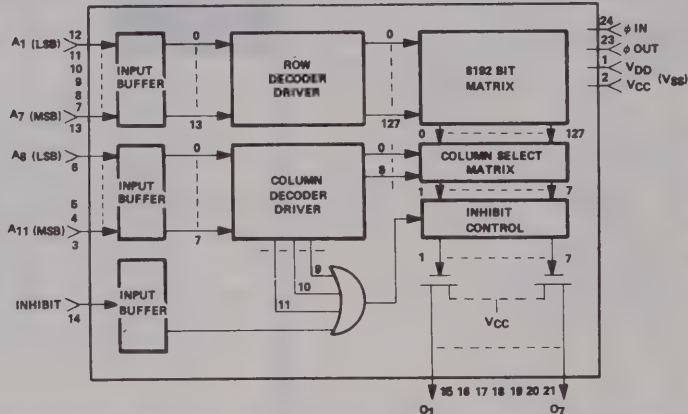
C41



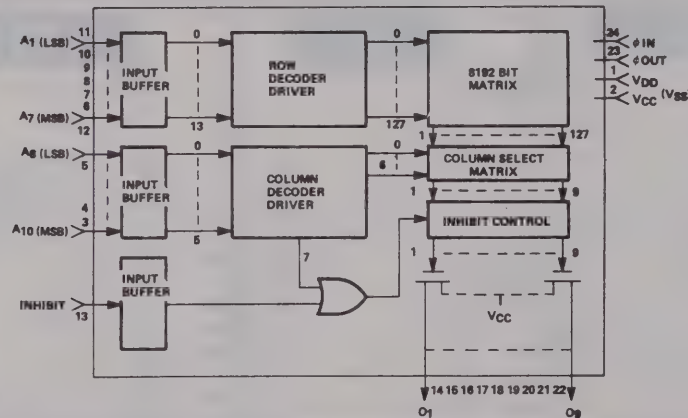
C42



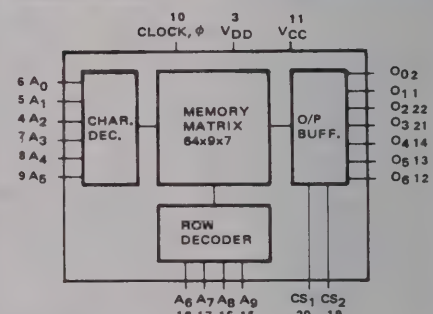
C43



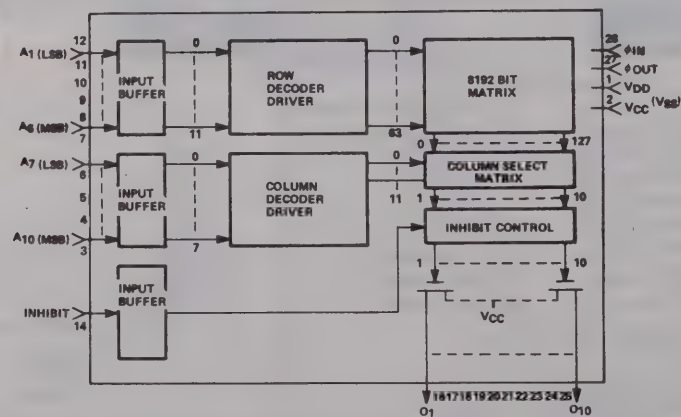
C44



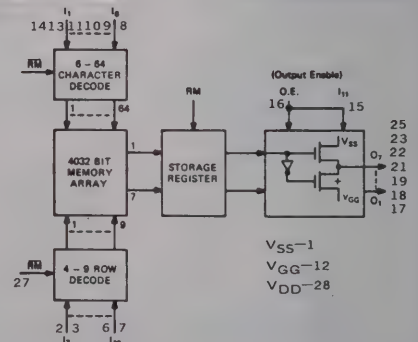
C46



C45



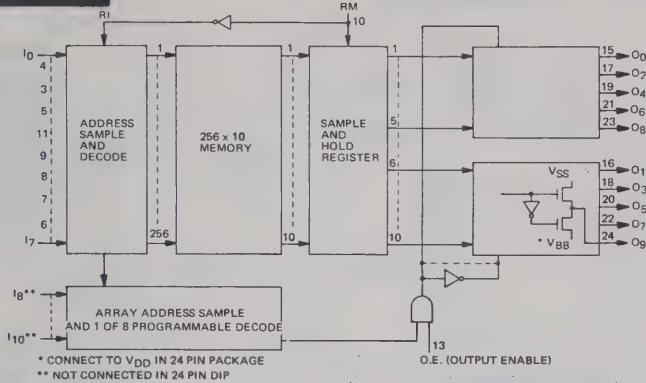
C47



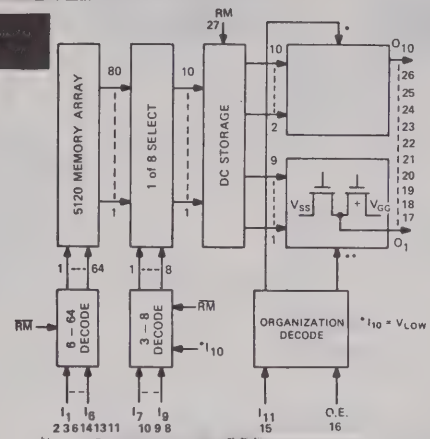
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

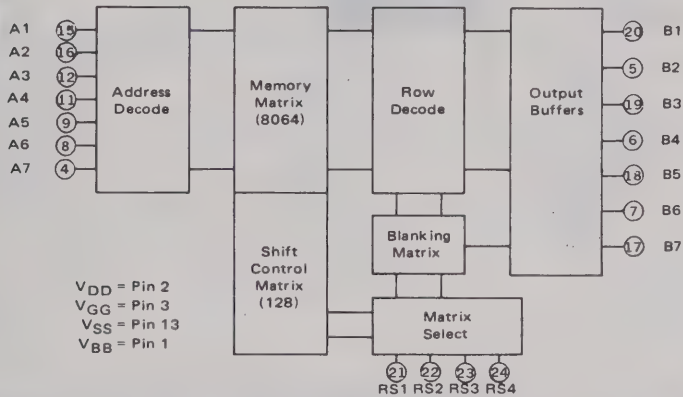
C48



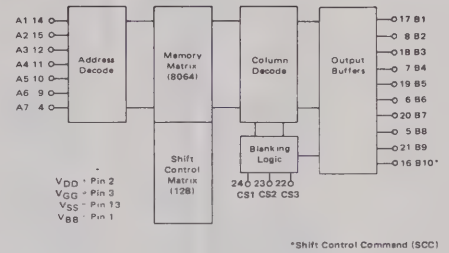
C49



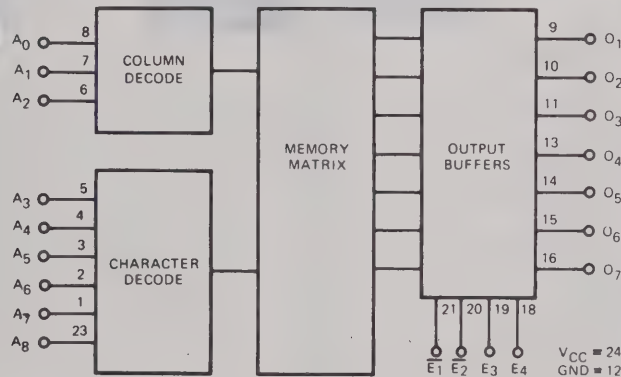
C50



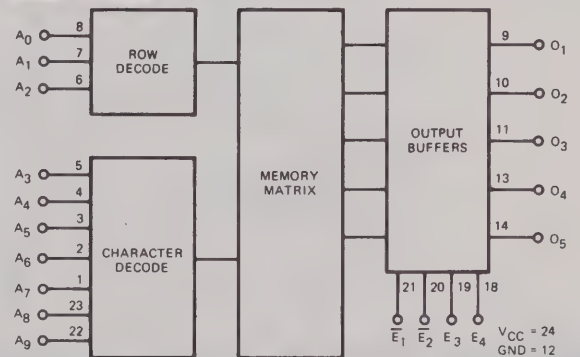
C51



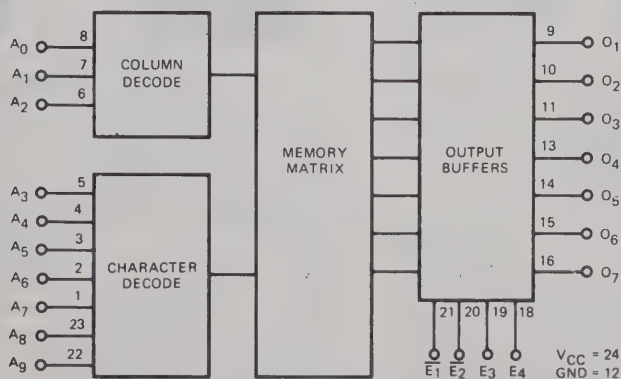
C52



C53



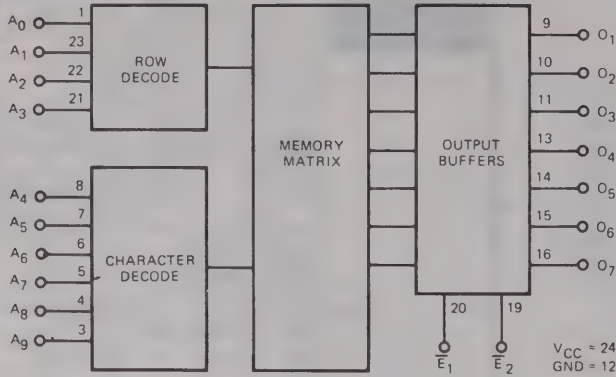
C54



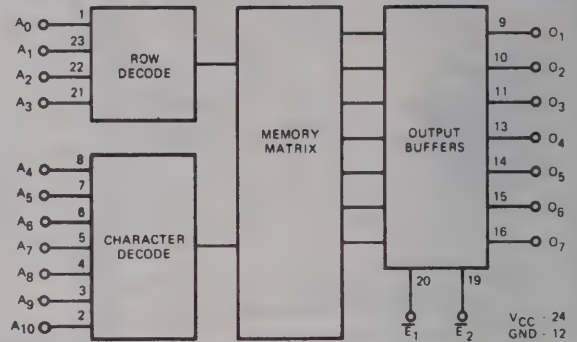
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

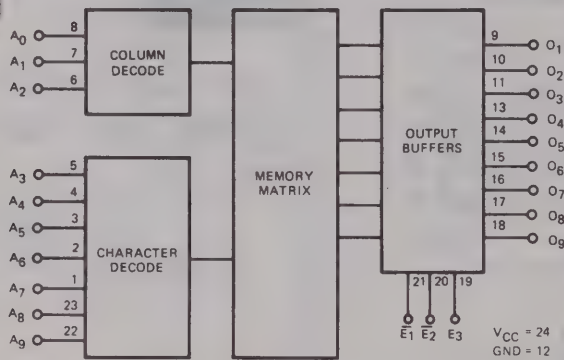
C55



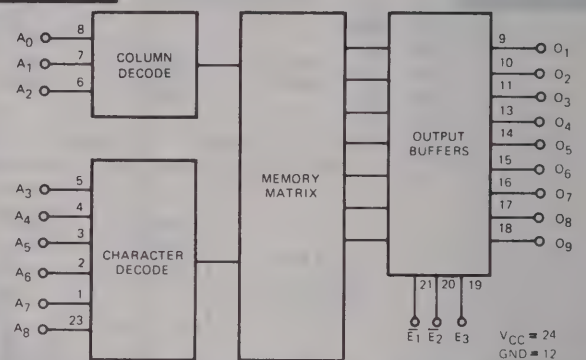
C56



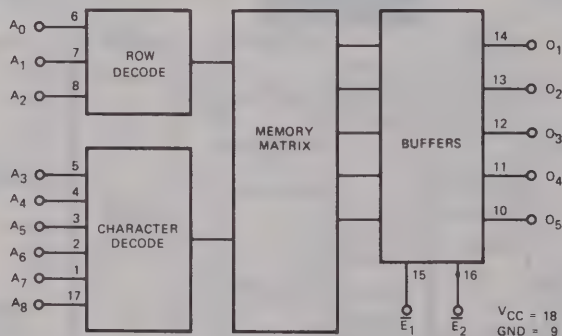
C57



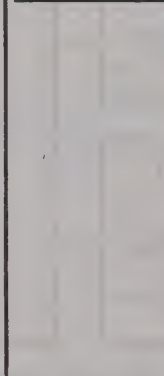
C58



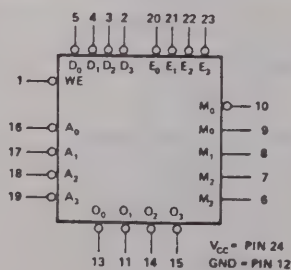
C59



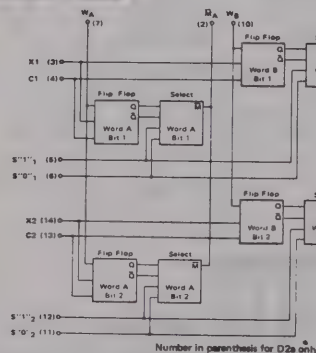
C60



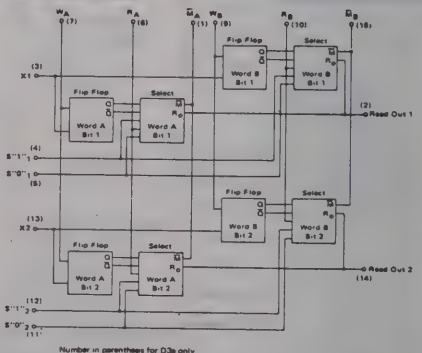
D1



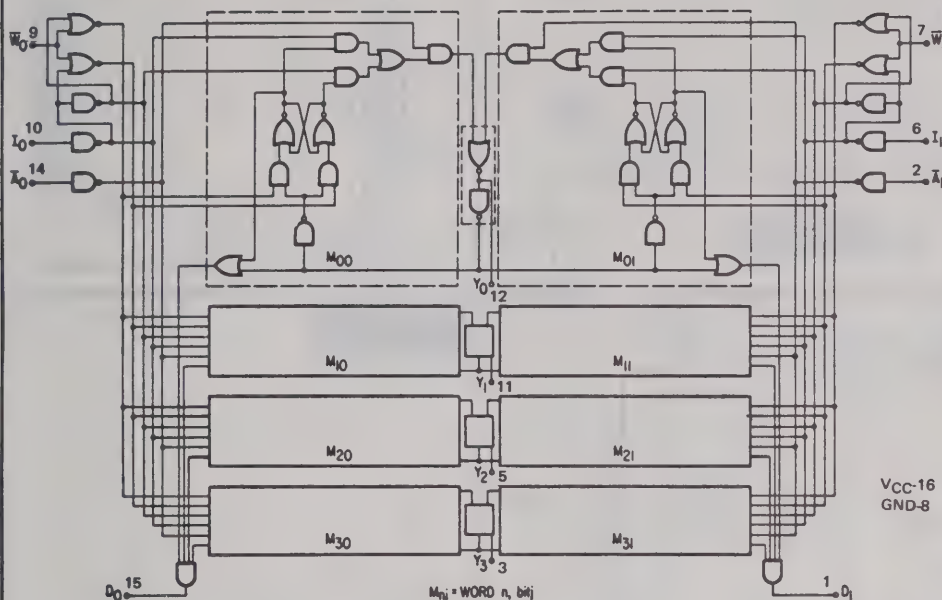
D2



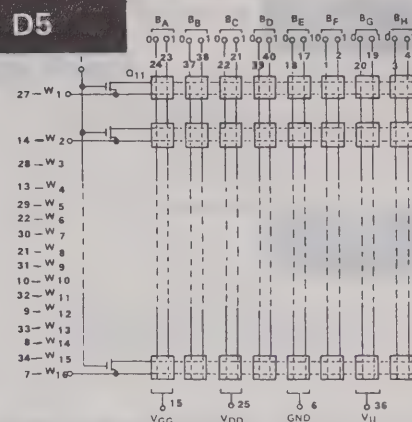
D3



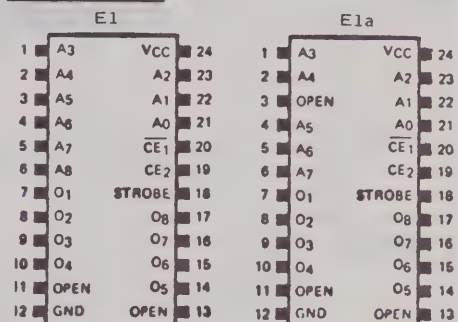
D4



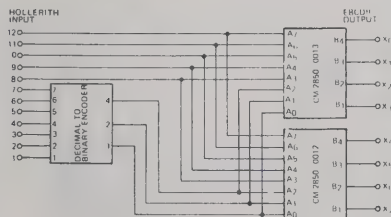
D5



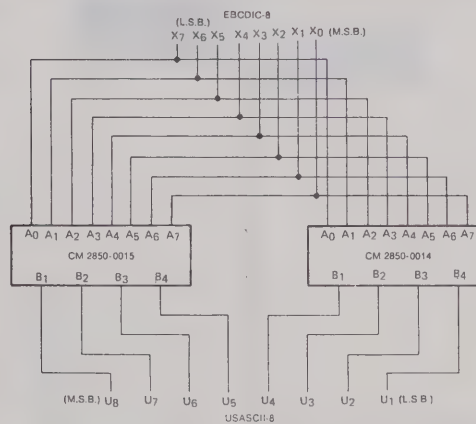
E1



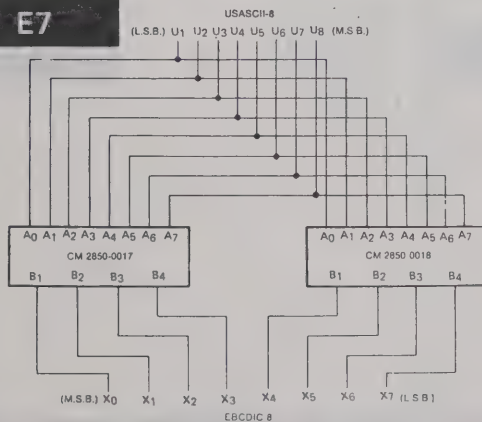
E5



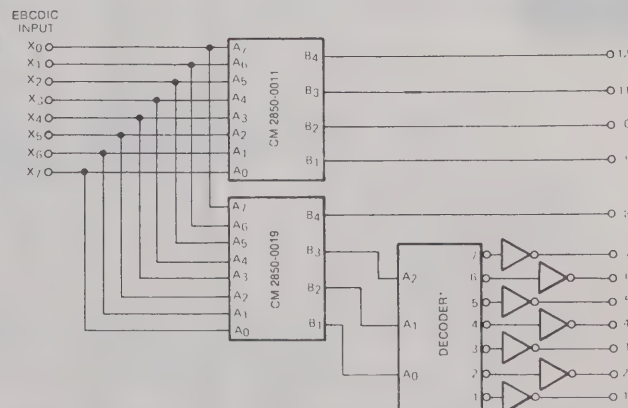
E6



E7



E8



SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

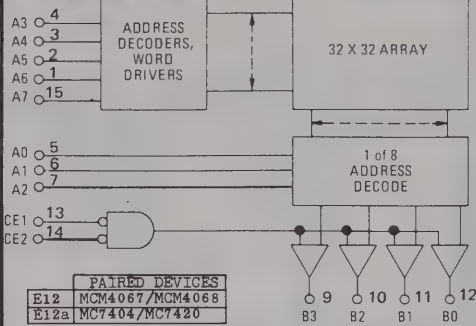
E9

PAIRED DEVICES
E9 CM2850CDE0049/CM2850CDE0050

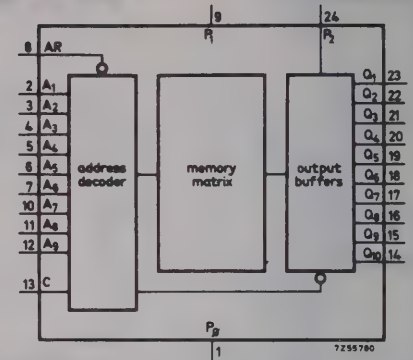
E10

PAIRED DEVICES
E10 CM2850CDE0051/CM2850CDE0052

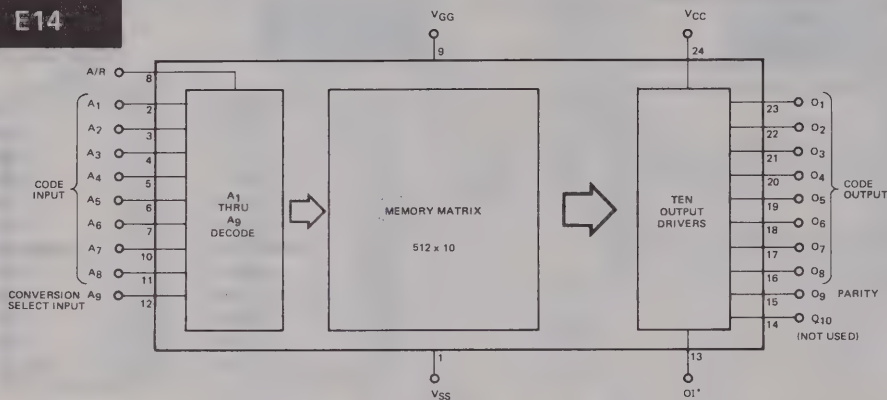
E12



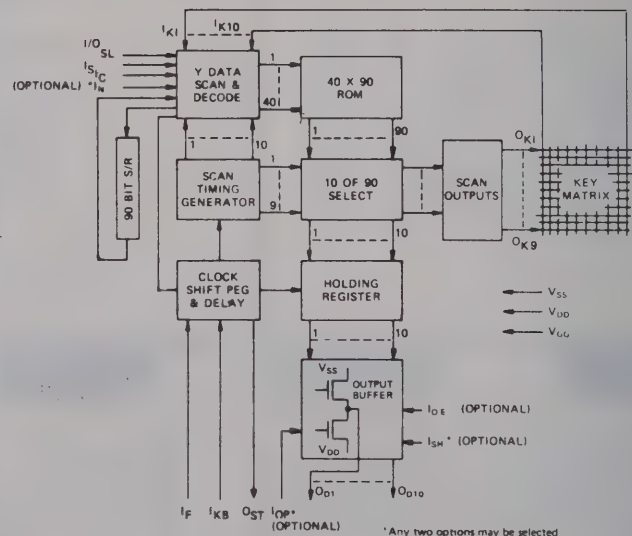
E13



E14



E15



Pin/Func.	Pin/Func.
1 I _F	40 I _{K10}
2 I _C	39 I _{K9}
3 I _S	38 I _{O SL}
4 I _{KB}	37 I _{K8}
5 *	36 I _{K7}
6 *	35 I _{K6}
7 V _{SS}	34 O _{ST}
8 O _{D1}	33 I _{K5}
9 O _{D2}	32 I _{K4}
10 O _{D3}	31 I _{K3}
11 O _{D4}	30 I _{K2}
12 O _{D5}	29 I _{K1}
13 O _{D6}	28 O _{K5}
14 O _{D7}	27 O _{K4}
15 O _{D8}	26 O _{K3}
16 O _{D9}	25 O _{K2}
17 O _{D10}	24 O _{K1}
18 V _{DD}	23 O _{K9}
19 V _{GG}	22 O _{K8}
20 O _{K6}	21 O _{K7}

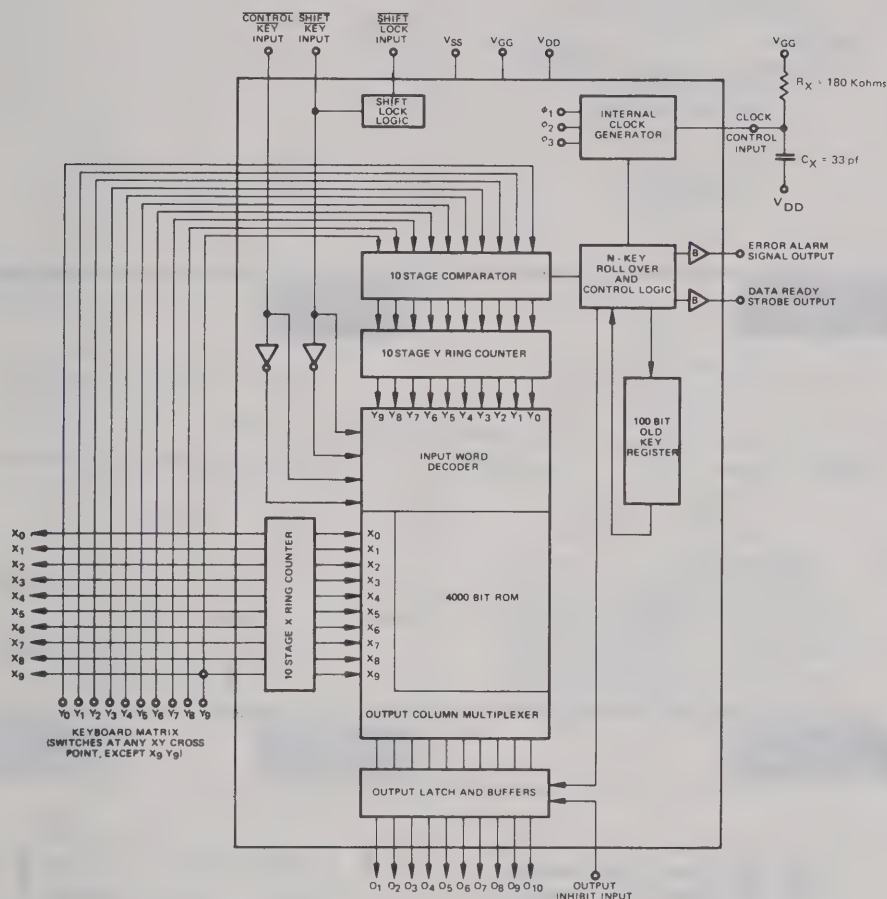
*Options	Pin 5	Pin 6
1	I _{OP}	O _E
2	I _{SH}	O _E
3	I _{SH}	I _{OP}
4	I _N	O _E
5	I _N	I _{OP} S9021
6	I _N	I _{SH}

* Any two options may be selected

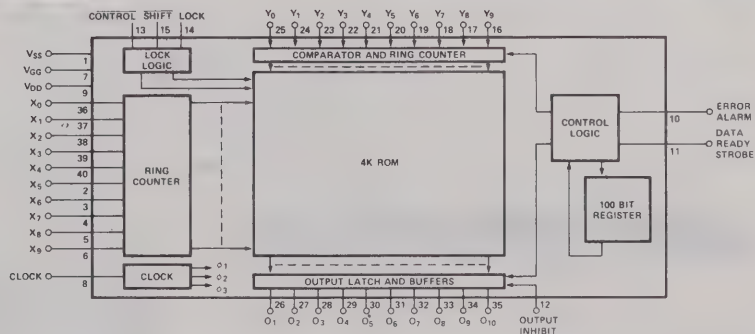
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

E16



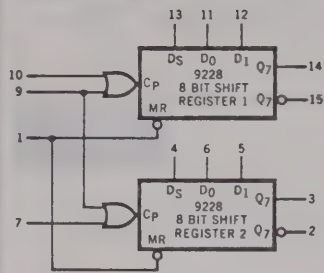
E17



SECTION 9. LOGIC/BLOCK DRAWINGS

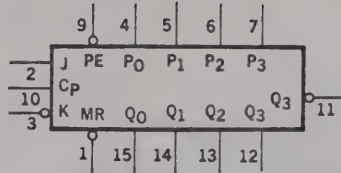
IN DRAWING NUMBER
SEQUENCE

F1



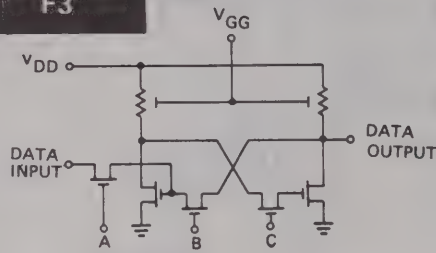
V_{CC} = Pin 16
Gnd = Pin 8

F2



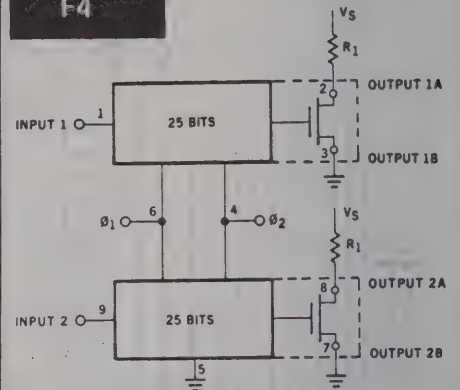
V_{CC} = PIN 16
GND = PIN 8

F3

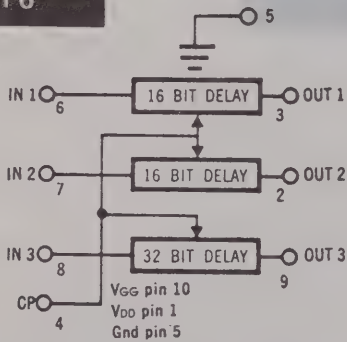


	CKT No.	DATA INP	DATA OUTP	A	B	C	VDD	VGG	GND
F3	1	8	7	4	4	4	10	6	5
	2	1	9	4	4	4	10	6	5
	3	3	2	4	4	4	10	6	5
F3a	1	3	9	8	2	2	10	6	1, 5
	2	4	7	8	2	2	10	6	1, 5
F3b	1	2	1	8	7	7	10	6	5
	2	3	4	8	7	7	10	6	5

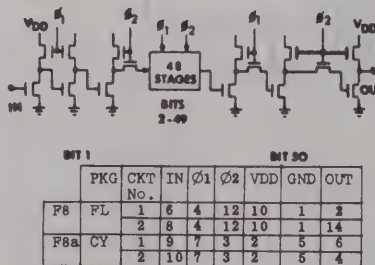
F4



F6

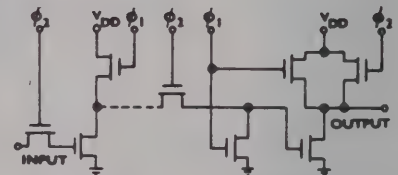


F8

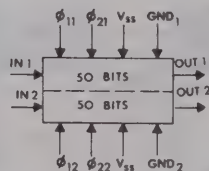


	PKG	CKT No.	IN	OUT 1	OUT 2	VDD	GND	OUT
F8	FL	1	6	4	12	10	1	2
		2	8	4	12	10	1	14
F8a	CY	1	9	7	3	2	5	6
		2	10	7	3	2	5	4

F9



F10

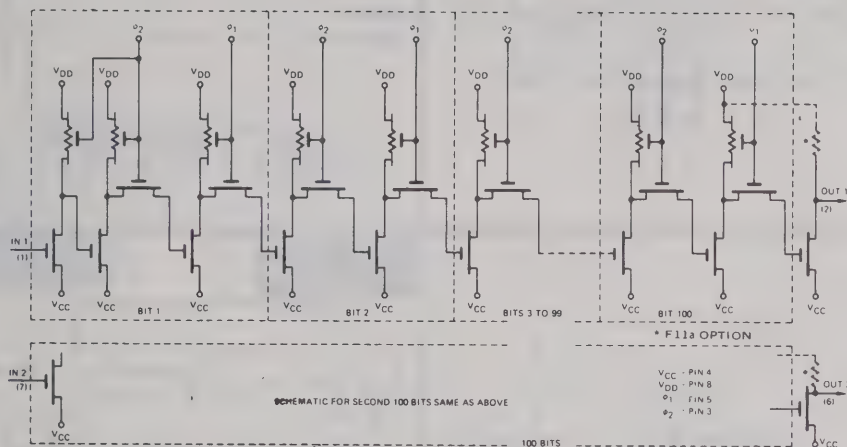


	IN1	IN2	OUT 1	OUT 2	VDD	GND1	GND2	OUT1	OUT2
F10	4	16	7	19	6	18	3, 15	8	20
F10a	2	8	5	11	4	10	1, 7	6	12

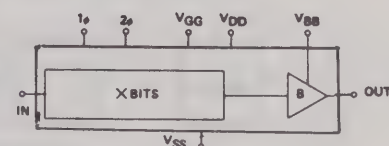
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

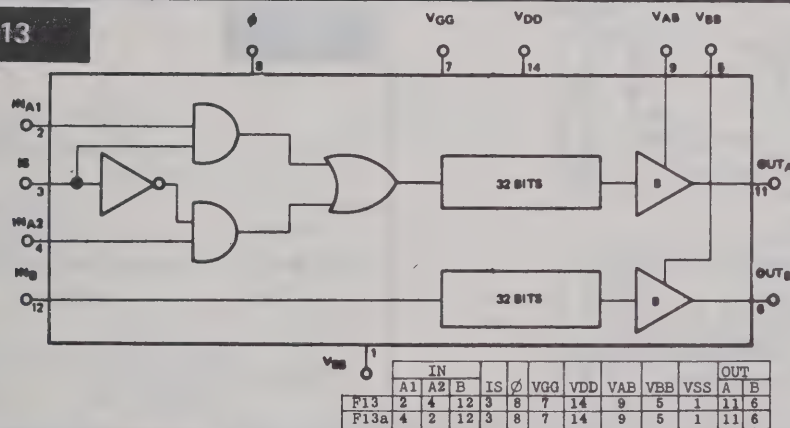
F11



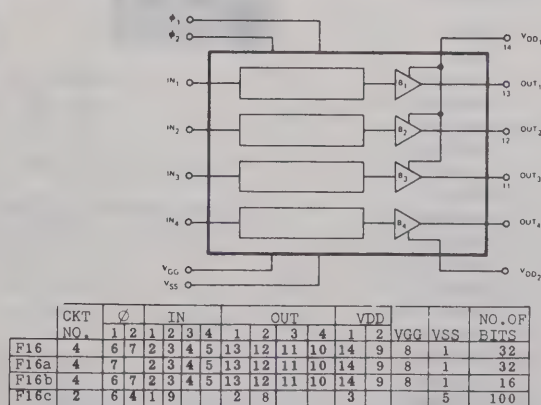
F14



F13



F16

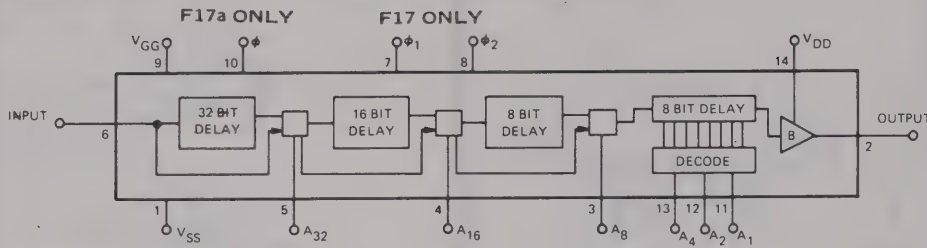


		GKT	PKG	IN	OUT	VBB	Ø1	Ø2	VDD	VGG	VSS	NO.OF BITS
F14	A	CN	7	3	2	1	1	6	10	4	32	
	B	CN	5	9	8	1	1	6	10	4	32	
F14a	A	CN	6	10		3	1	8		7	256	
F14b	A	MP	13	2		10	5	14		1	256	
F14c	A	CN	6	10		1	8		2	7	256	
F14d	A	MP	13	2		5		14	9	1	256	
F14e	A	CN	4	6	5	3	1			7	256	
	B	CN	8	10	9	3	1			7	256	
F14f	A	CN	6	10	8	3	1			7	512	
F14g	A	CN	8	3		5		2	6	1	200	
F14h	A	MP	12	3		7		2	8	1	200	
F14j	A	CN	3	4		10	1	2			66	
	B	CN	5	6		10	1	2			66	
	C	CN	7	8		10	1	2			66	
F14k	1	CN	1	2	NA	4	6	3	7	5	100	
	2		9	8								
F14m	1	CN	2	3	1	6	NA	4	7	5	100	
	2		10	8	9							
F14n	1	CN	1	2	NA	4	6	3	7	5	80	
	2		9	8								
F14p	1	CN	2	3	1	6	NA	4	7	5	80	
	2		10	8	9							

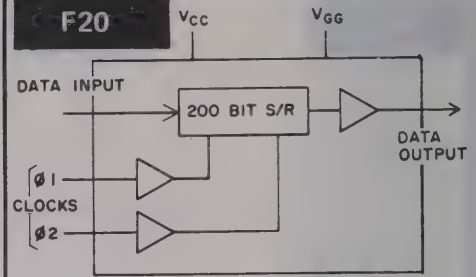
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

F17

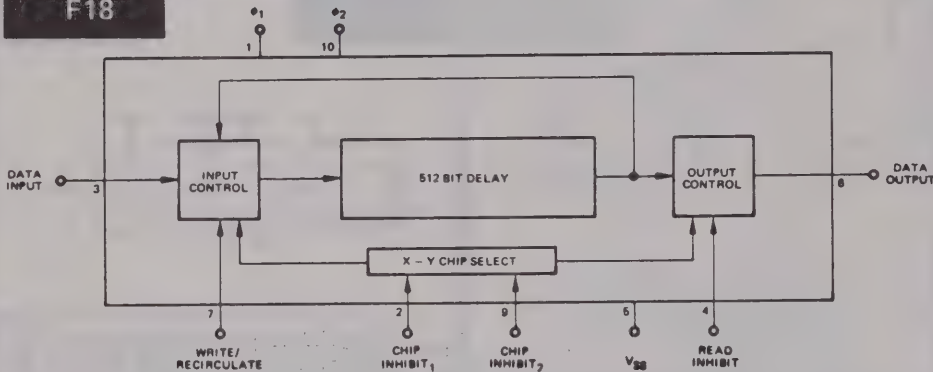


F20

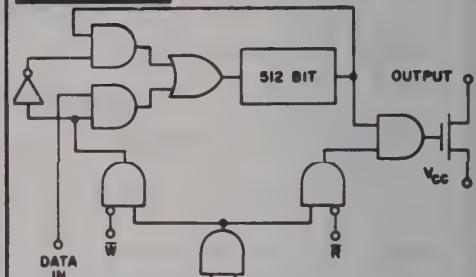


PKG	INPUT	φ1	φ2	OUTPUT	VCC	VGG
F20	CY	7	3	5	2	4
	ML	12	5	8	3	7

F18

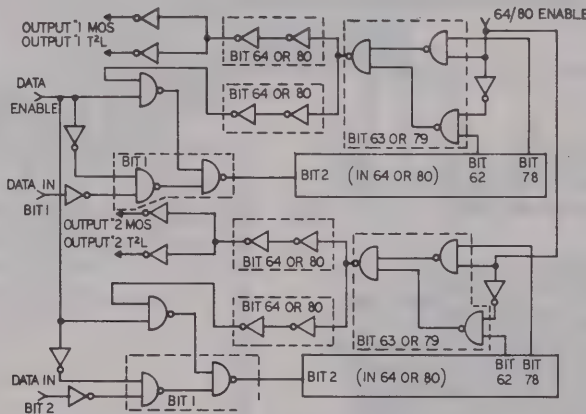


F21

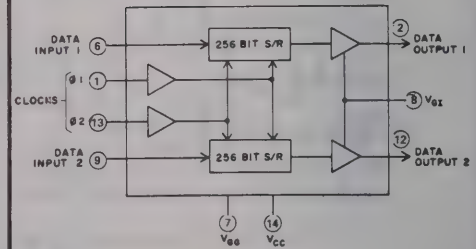


PKG	DATA IN	X	Y	R	VCC	OUTPUT
F21	CY	9	6	3	7	10
	ML	3	8	9	12	7

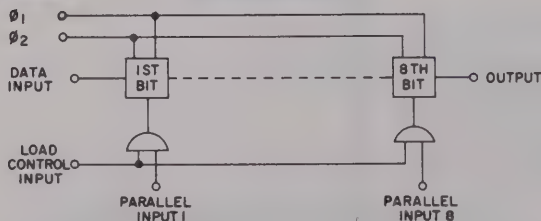
F19



F22



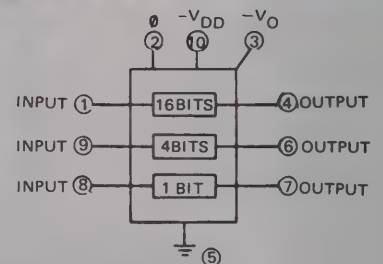
F23



TERMINALS

P/N	FUNCTION
1	Ground
2	Parallel Input 5
3	Parallel Input 6
4	Parallel Input 7
5	Parallel Input 8
6	Serial Data Output
7	Clock (φ1)
8	Drain Voltage (—V _{DD})
9	Gate Voltage (—V _{GG})
10	Serial Data Input
11	Clock (φ2)
12	Load Command Input
13	Parallel Input 1
14	Parallel Input 2
15	Parallel Input 3
16	Parallel Input 4

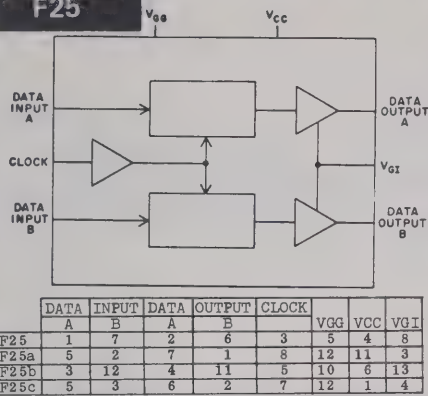
F24



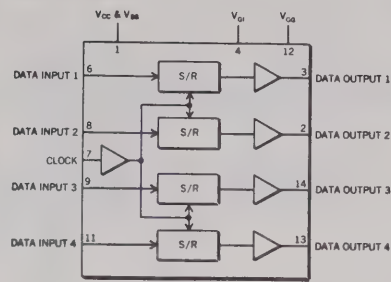
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

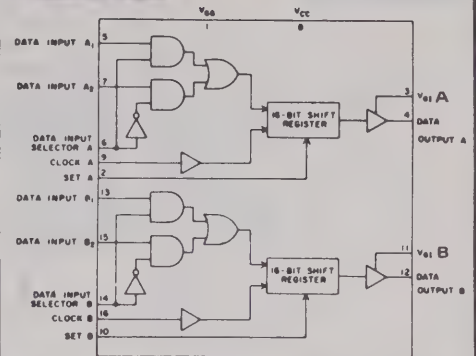
F25



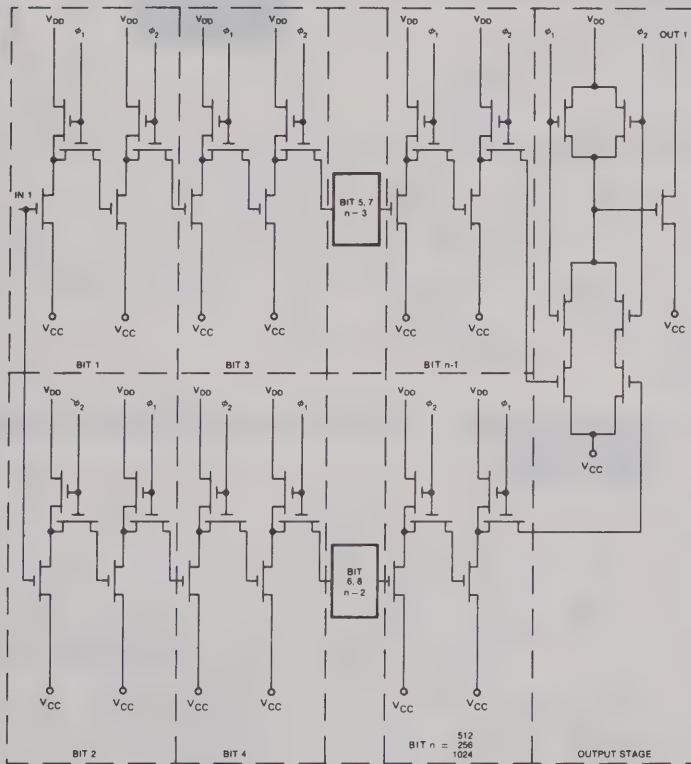
F26



F27

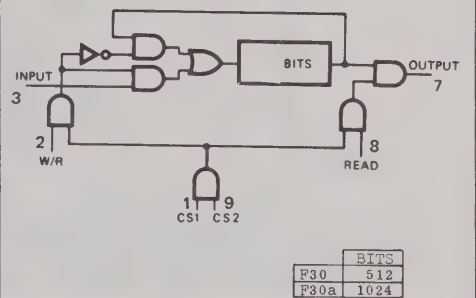


F29

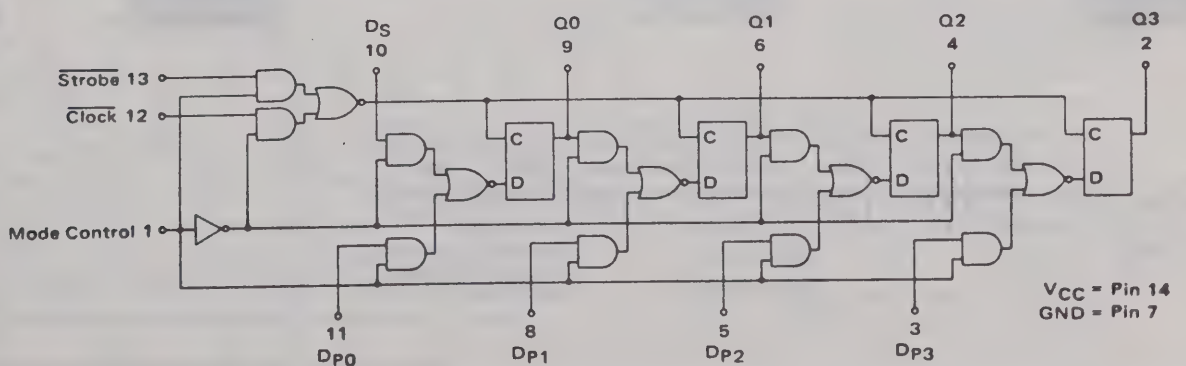


	NO. OF BITS	COMMENT
F29	256	3 MORE IDENTICAL REGISTERS
F29a	512	1 MORE IDENTICAL REGISTER
F29b	1024	ONLY REGISTER

F30



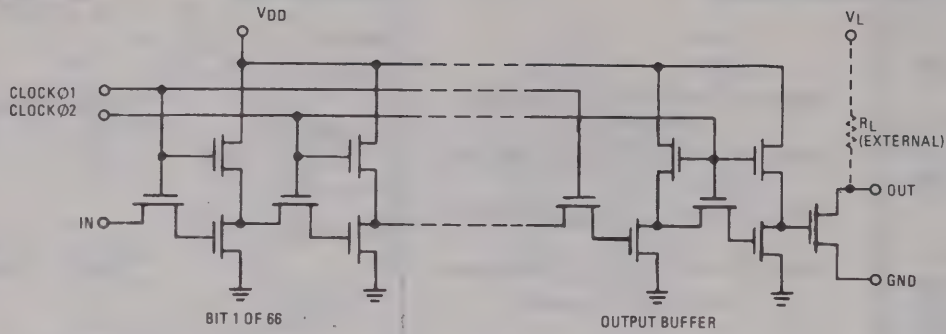
F31



SECTION 9. LOGIC/BLOCK DRAWINGS

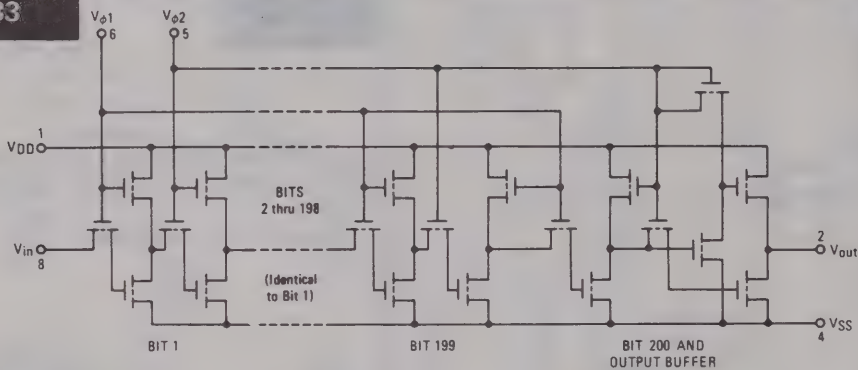
IN DRAWING NUMBER
SEQUENCE

F32

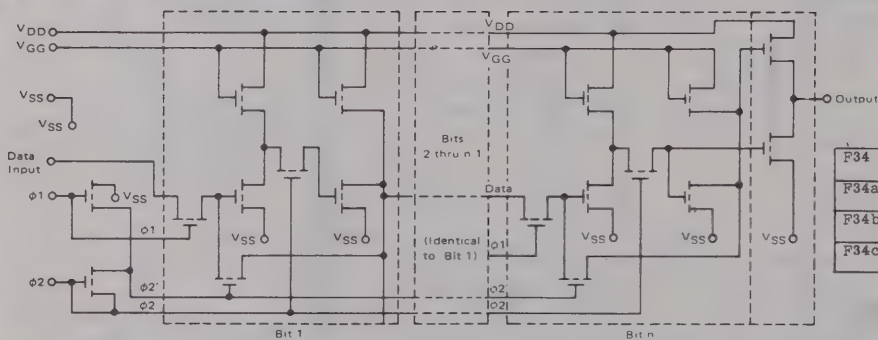


CKT No.	Ø1	Ø2	IN	OUT	VDD	GND
F32	1	10	1	3	4	2
	2	10	1	5	6	2
	3	10	1	7	8	2

F33

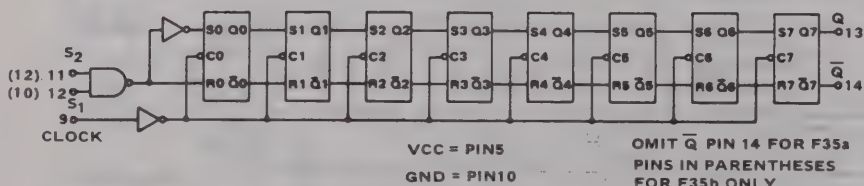


F34



CKT	IN	Ø1	Ø2	VGG	VDD	VSS	OUT	NO. OF BITS
F34	1	1	4	6	7	3	5	2
	2	9						8
F34a	1	1	4	6	7	3	5	2
	2	9						8
F34b	1	2	3	5	6	10	9	1
	2	8						7
F34c	1	2	3	5	6	10	9	1
	2	8						7

F35



VCC = PIN5
GND = PIN10

OMIT \bar{Q} PIN 14 FOR F35a
PINS IN PARENTHESES
FOR F35b ONLY

IN DRAWING NUMBER
SEQUENCE

The logic diagram of the 74181 ALU shows the internal structure. It includes four 3-input AND gates (A, B, C) and four 2-input AND gates (D, E, F, G). There are four 3-input OR gates (H, I, J, K) and four 2-input OR gates (L, M, N, O). The circuit contains four SR flip-flops (Q0, Q1, Q2, Q3) and four D flip-flops (Dp0, Dp1, Dp2, Dp3). The inputs are Serial Input Ds (pin 1), Dp0 (pin 2), Mode Control (pin 6), Clock 2 Left Shift (pin 8), and Clock 1 Right Shift (pin 9). The outputs are Q0 (pin 13), Q1 (pin 12), Q2 (pin 11), and Q3 (pin 10). The power supply is VCC = Pin 14 and GND = Pin 7.

V_{CC} = Pin 14
GND = Pin 7

	CLOCK	J	\overline{K}	\overline{MR}	Q				$\overline{Q3}$	DP				\overline{PE}	VCC	GND
					0	1	2	3		0	1	2	3			
F37	10	2	3	1	15	14	13	12	11	4	5	6	7	9	16	8
F37a	1	11	12	9	13	15	3	7	6	10	14	2	5	4	16	8

V_{CC} = Pin 16
GND = Pin 8

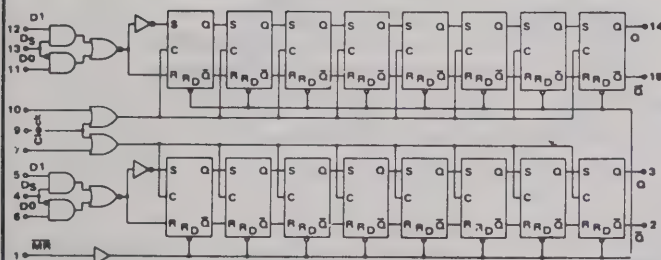
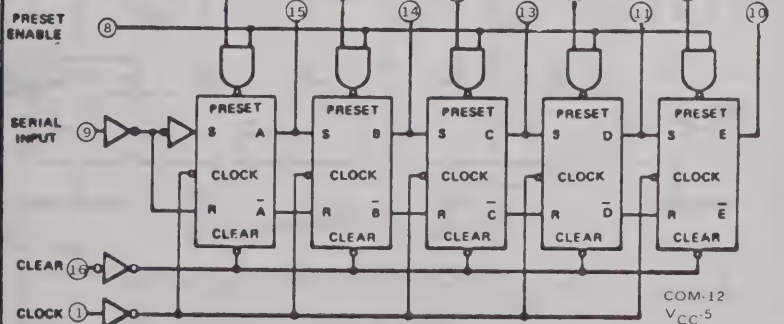


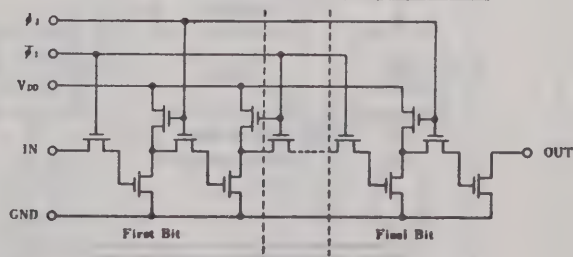
Figure 1 is a block diagram of the 74ALS164 8-bit serial input shift register. It consists of four 2-bit data buses (Data A, B, C, D) connected to the Q outputs of the register. The Serial Input (SI) is connected to the D input of the first flip-flop. The Parallel Enable (PE) is connected to the clock input of all flip-flops. The Direct Clear (DC) is connected to the clear input of all flip-flops. The T and C inputs of each flip-flop are connected to the PE and DC inputs respectively.

PRESET PRESET PRESET PRESET PRESET

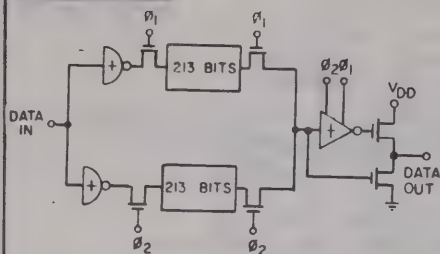


COM-12
V_{CC}-5

	CKT NO.	$\phi 2$	$\phi 1$	VDD	IN	GND	OUT
F41	1	5	3	14	4	7	2
	2	5	13	14	1	7	9
F41a	1	5	3	14	4	7	2
	2	5	13	14	1	7	6

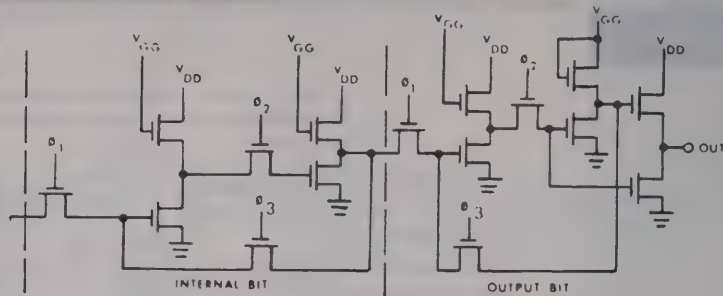


F42



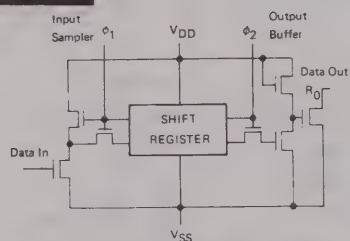
	PKG	IN	phi_1	phi_2	OUT	VDD	GND
F42	FL	7	8	5	14	10	1
	CV	8	10	6	4	2	5

F43



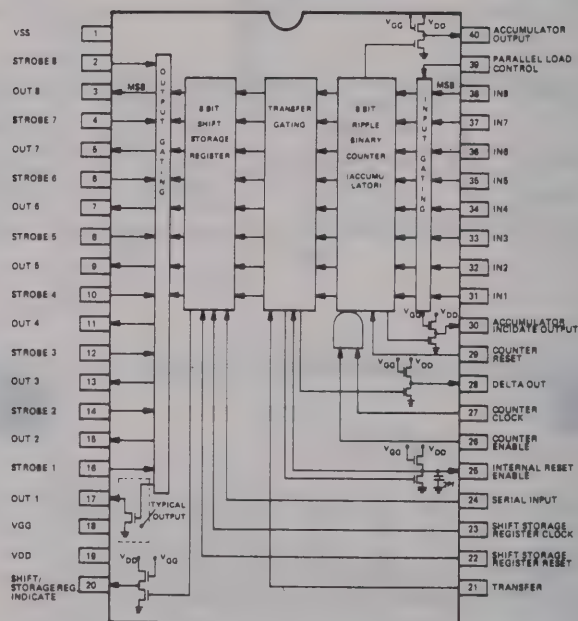
	CKT No.	INPUT	OUTPUT	VDD	phi_1	GND	phi_2	VGG
F43	1	1	1	3	4	5	6	7
	2	9	8	3	4	10	6	7

F44



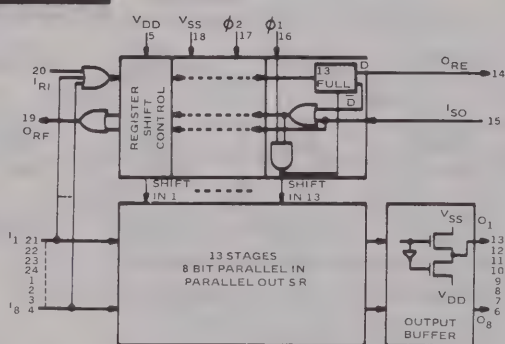
	CKT No.	IN	phi_1	VDD	phi_2	OUT	VSS
F44	1	6	9	7	11	8	1
	2	5	9	7	11	3	1
F44a	1	2	7	6	8	12	1
	2	3	7	6	8	11	1
	3	4	7	6	8	10	1
	4	5	7	6	8	9	1

F45

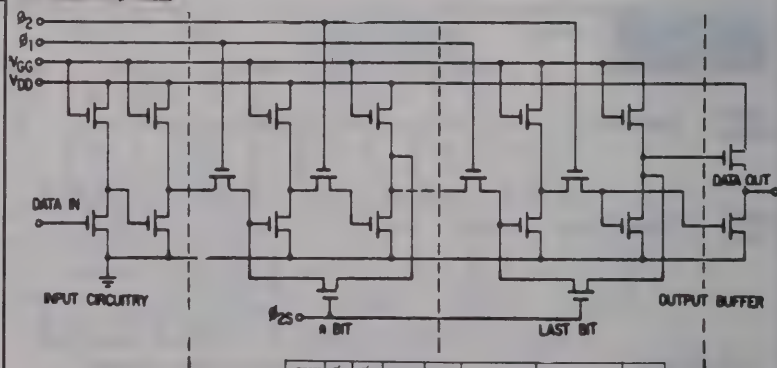


F46

NOTE:
IN F46a V_{GG} REPLACES V_{DD}.



F48

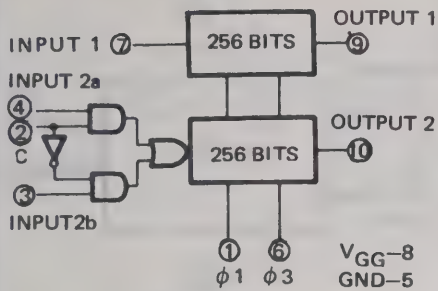


	CKT No.	phi_2	phi_1	VGG	VDD	DATA IN	DATA OUT	GND
F48	1	6	4	7	3	1	2	5
	2	8	4	7	3	9	8	5

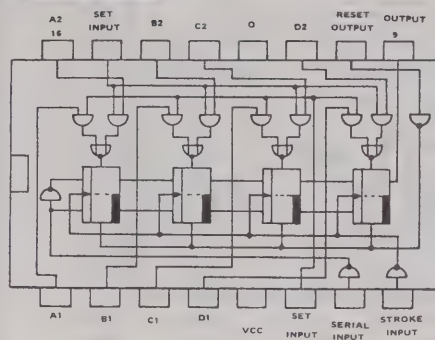
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

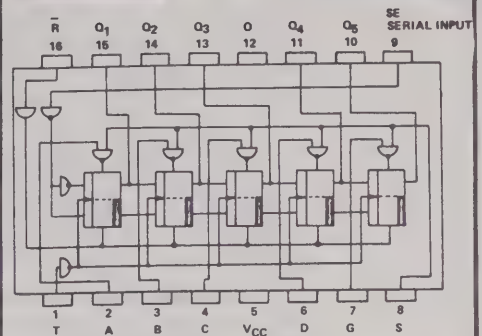
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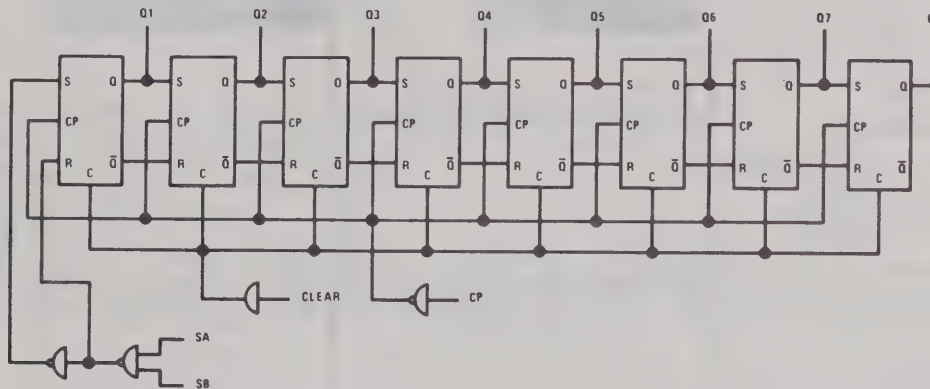
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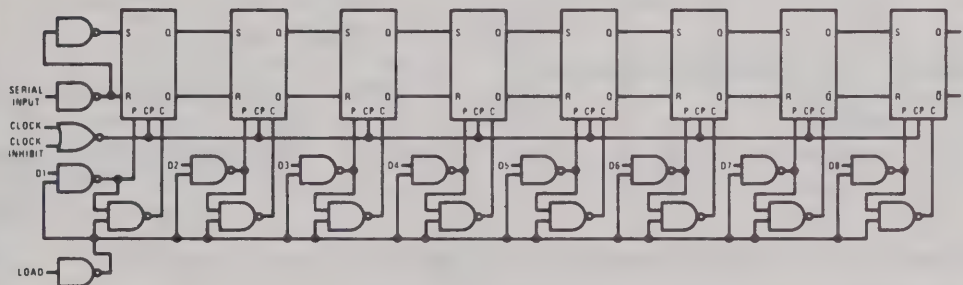
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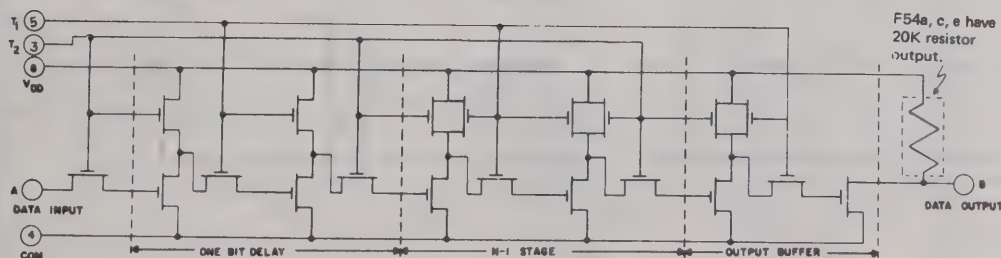
F52



F53



F54

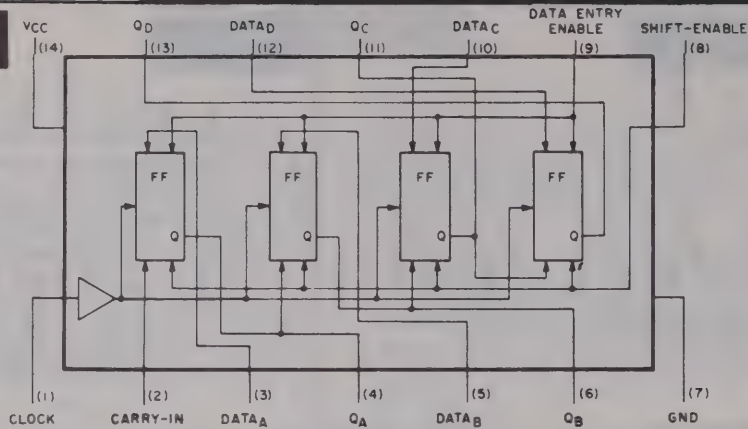


	CKT NO.	A	B	NO. OF BITS
F54a, a	1	1	2	25
F54b, c	2	7	6	50
F54d, e	1	1	2	100
	2	7	6	

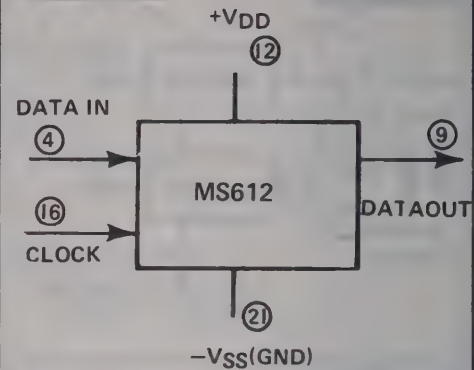
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

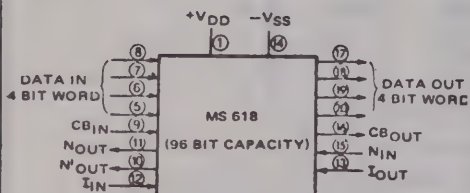
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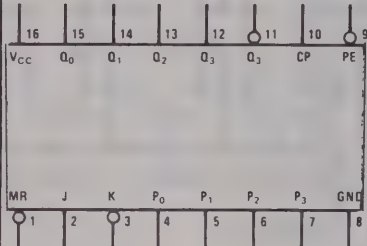
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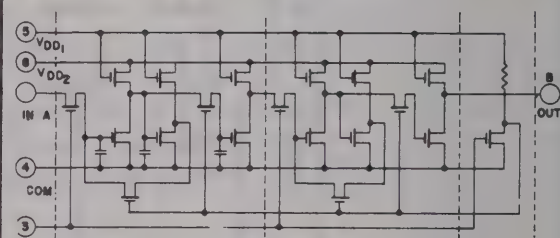
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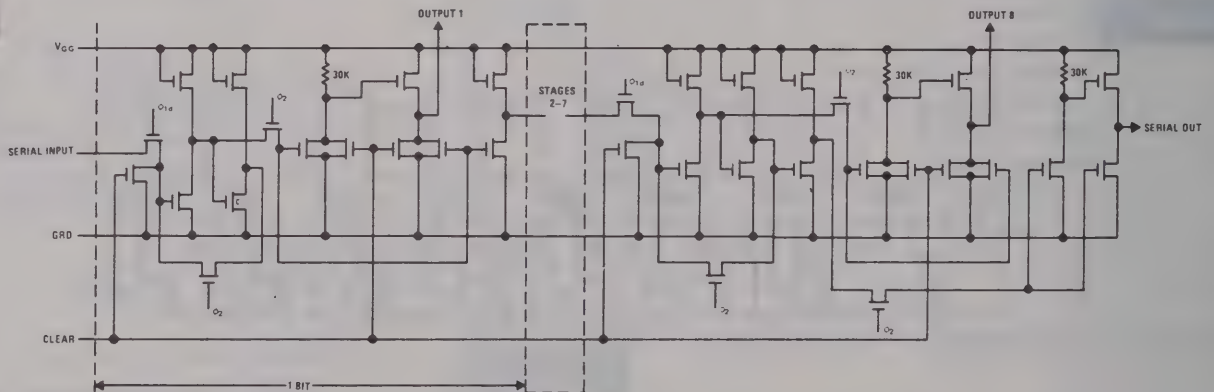
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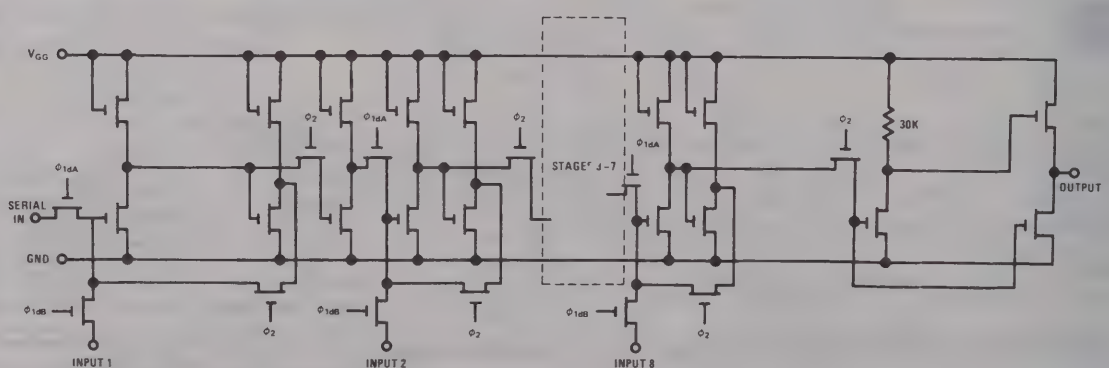
F62



F63



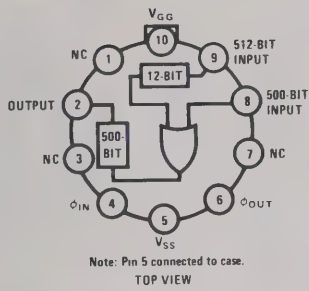
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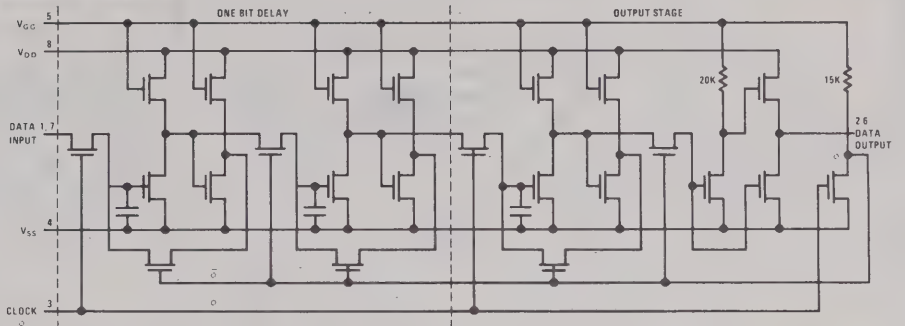
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

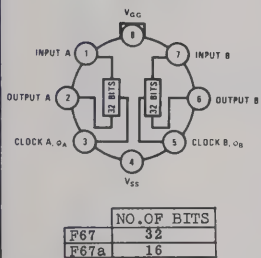
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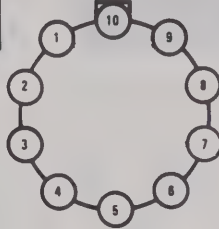
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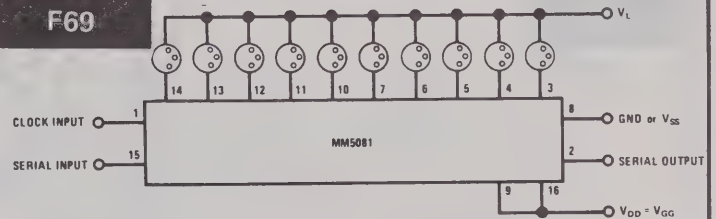
F67



F68

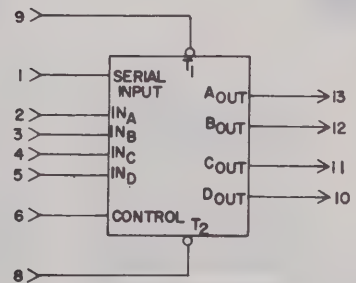
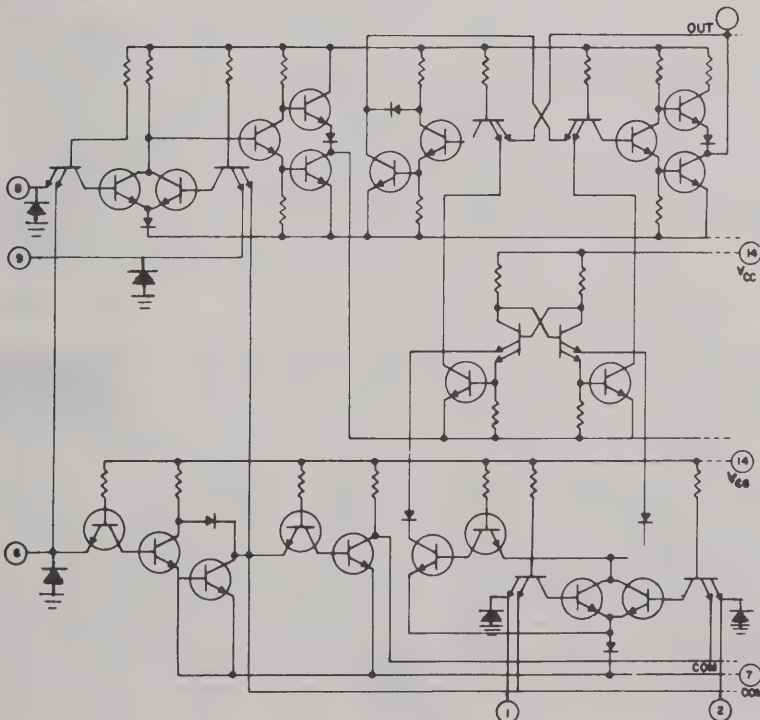


F69



		PIN NUMBERS									
NO. OF BITS	NO. OF REG.	1	2	3	4	5	6	7	8	9	10
F68	64	INA	OUT	OUTB	OUTA	VSS	OUTB	OUTB	OUTB	OUTB	VGG
F68a	64	OUT	IN1	OUT1	IN2	VSS	OUT2	IN3	OUT3	OUT	VGG
F68b	360	1	IN2	OUT2	LENGTH SELECT	VSS	IN1B	IN1A	OUT	OUT	VGG
F68c	64	4	ADDRESS1	IN	OUT	ADDRESS2	VSS	OUT	OUT	WRITE CONTROL	VGG

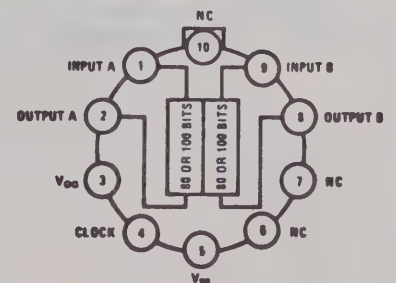
F70



CLAMPING DIODES
FOR F70a ONLY

F71

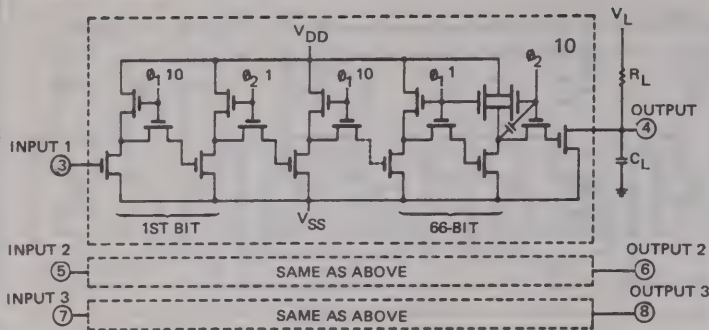
	NO. OF BITS
F71	80
F71a	100



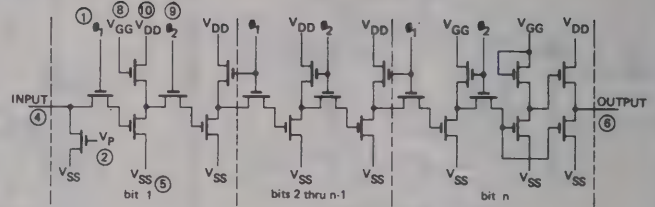
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

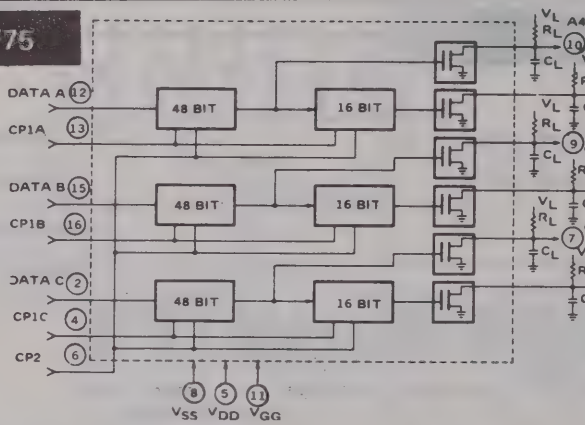
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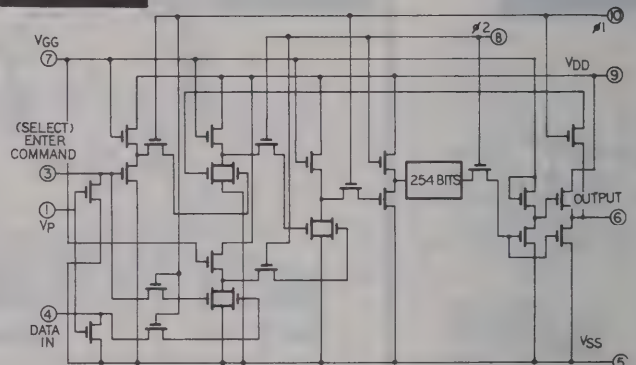
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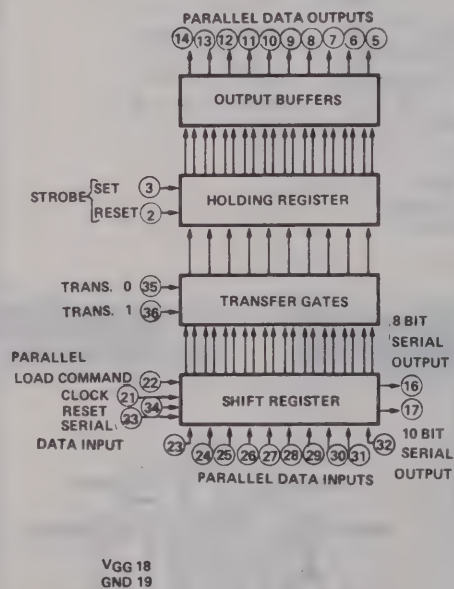
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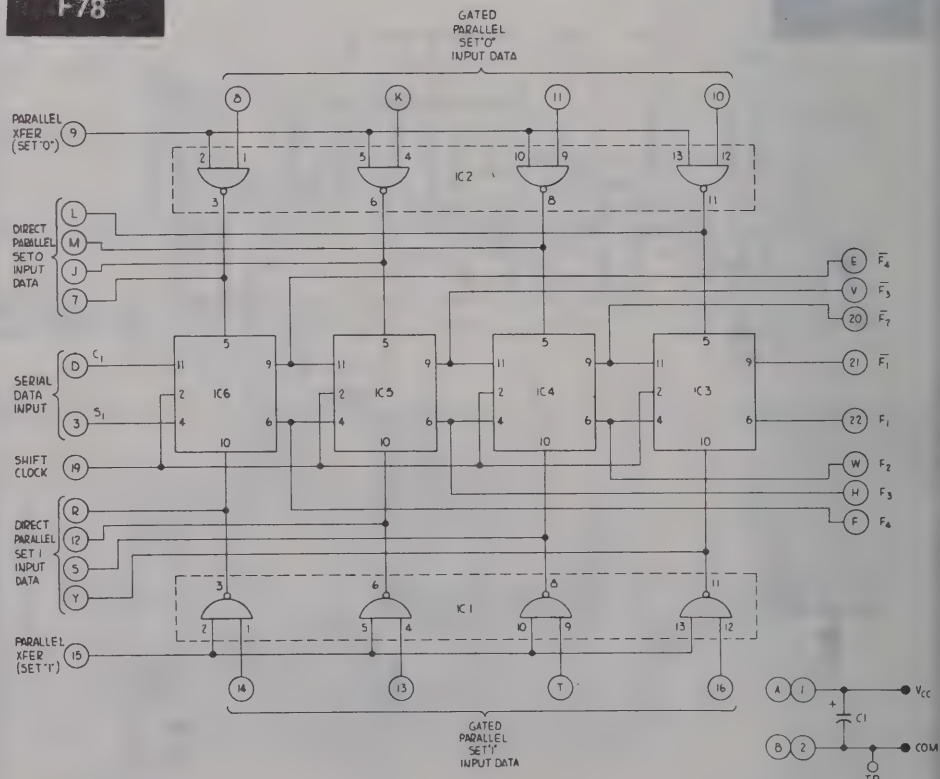
F76



F77



F78



IN DRAWING NUMBER
SEQUENCE

Figure 1 is a detailed schematic diagram of the 8085 microprocessor. It illustrates the internal architecture, including the ALU, registers, and control logic. The diagram is organized into two main horizontal sections. The upper section represents the ALU and register file, featuring four 8-bit registers (A, B, C, D) and a 4-bit ALU. The lower section represents the control logic, including the instruction decoder, control signals, and the 8-bit output bus. The diagram is labeled with various components and their connections, including the 8085 pinout and the internal logic gates and flip-flops. The schematic shows the flow of data and control signals between these components, providing a comprehensive view of the microprocessor's internal structure.

The diagram illustrates the timing of a 6-bit shift register. The input sequence (pins 1, 2, 6) is 1, 0, 1, 1, 0, 1, 0, 1. The output sequence (pins 10, 4, 11, 3, 12, 2) shows the bits shifting right, with the 6th bit appearing at output pin 10.

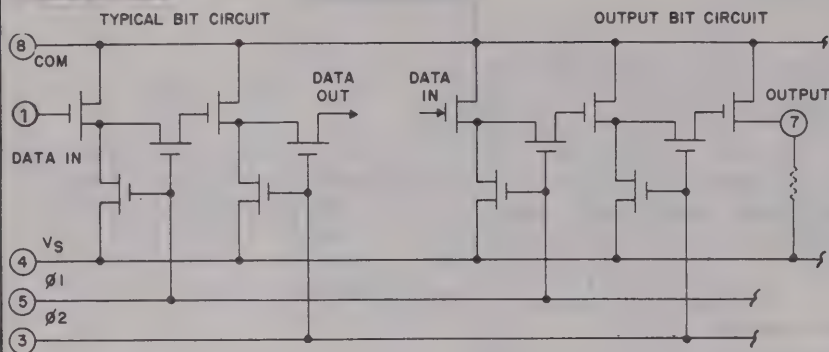
The diagram shows a 90/56-bit shift register with the following components and connections:

- Inputs:**
 - D_I (13) and D_R (14) are inputs to a 3-input AND gate.
 - C_1 (12) is an input to a 2-input AND gate.
 - C_2 (11) and C_3 (10) are inputs to a 3-input AND gate.
- Register Structure:**
 - The register consists of 90/56 bits, divided into two sections: 1 to 25 and 26 to 80.
 - Each bit cell contains a cross-coupled NAND gate structure.
- Outputs:**
 - D_{OUT} (2) is the output of the 80th bit cell.
 - O_V (9) is the output of the 25th bit cell.
 - O/P (5) is the output of the 1st bit cell.
 - CF (3) is the carry flag output.
- Control Signals:**
 - V_{DD} (1) and V_{GG} (8) are power supply connections.
 - ϕ_1 (7) and ϕ_2 (6) are clock signals.

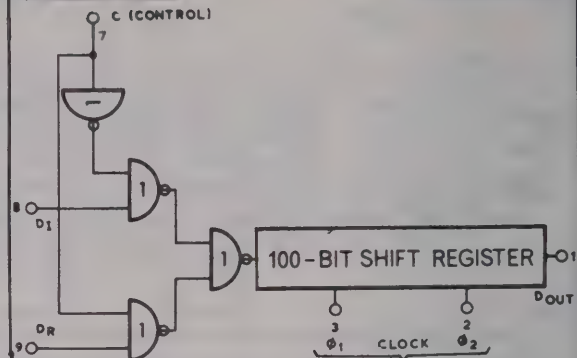
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
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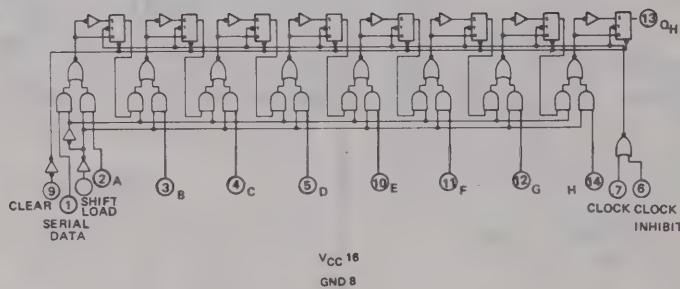
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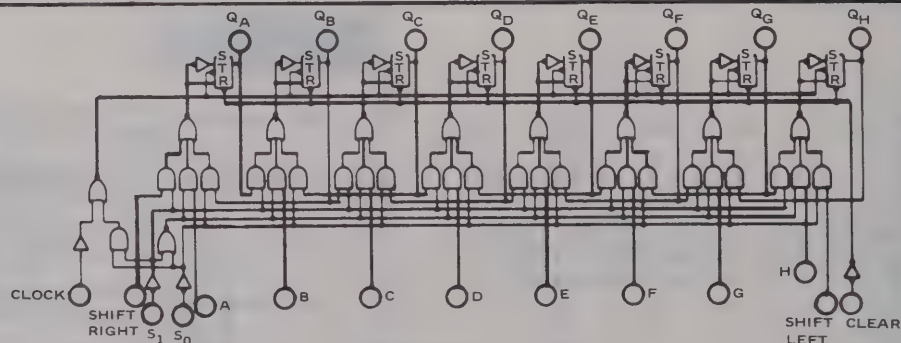
F86



F88

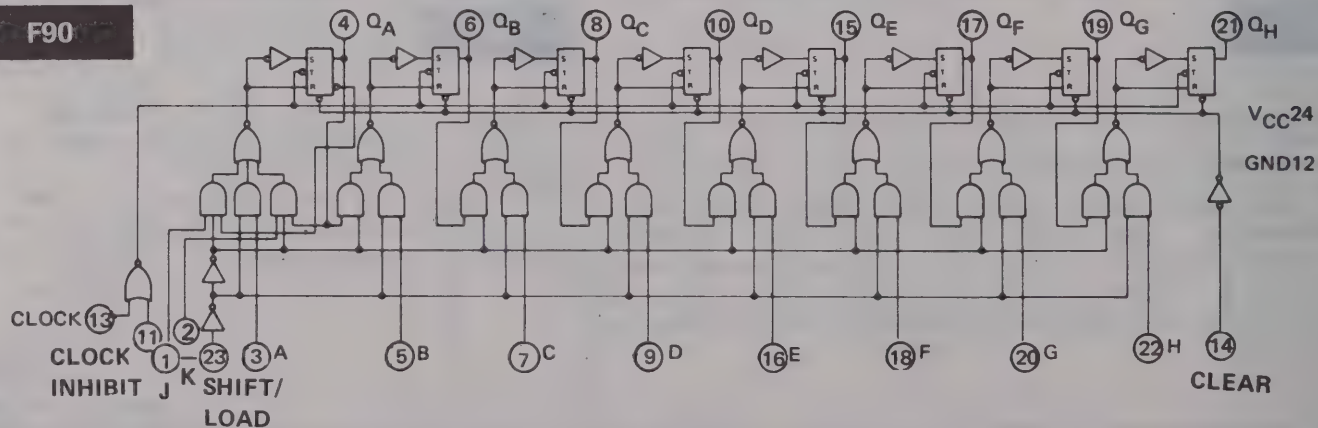


F89



	NO. OF BITS	CLOCK	SHIFT R	S1	S0															VCC	GND				
						A	B	C	D	E	F	G	H	SHIFT L	CLEAR	A	B	C	D			E	F	G	H
F89	8	11	2	23	13	5	7	9	15	17	19	21	22	13	1	4	6	8	10	14	16	18	20	24	12
F89a	4	11	2	10	9	3	4	5	6					7	1	15	14	13	12					16	8

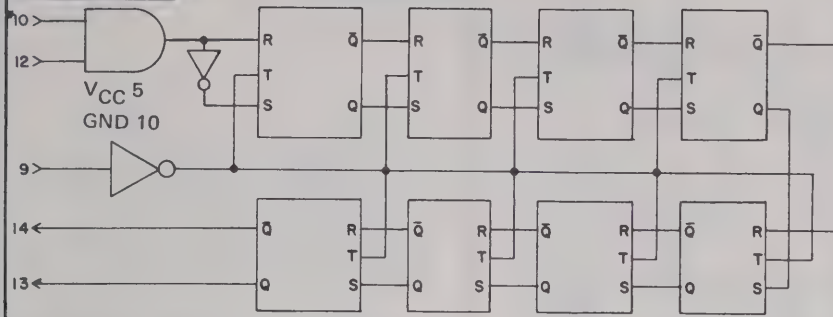
F90



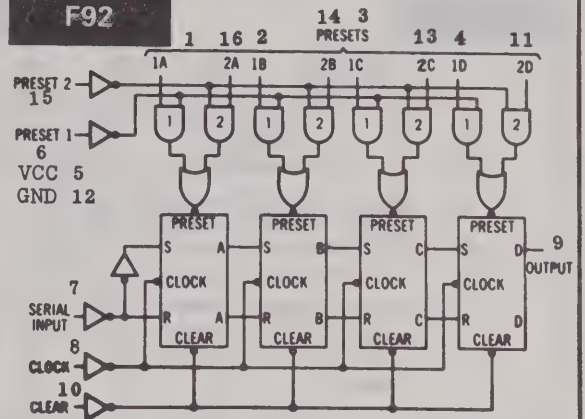
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
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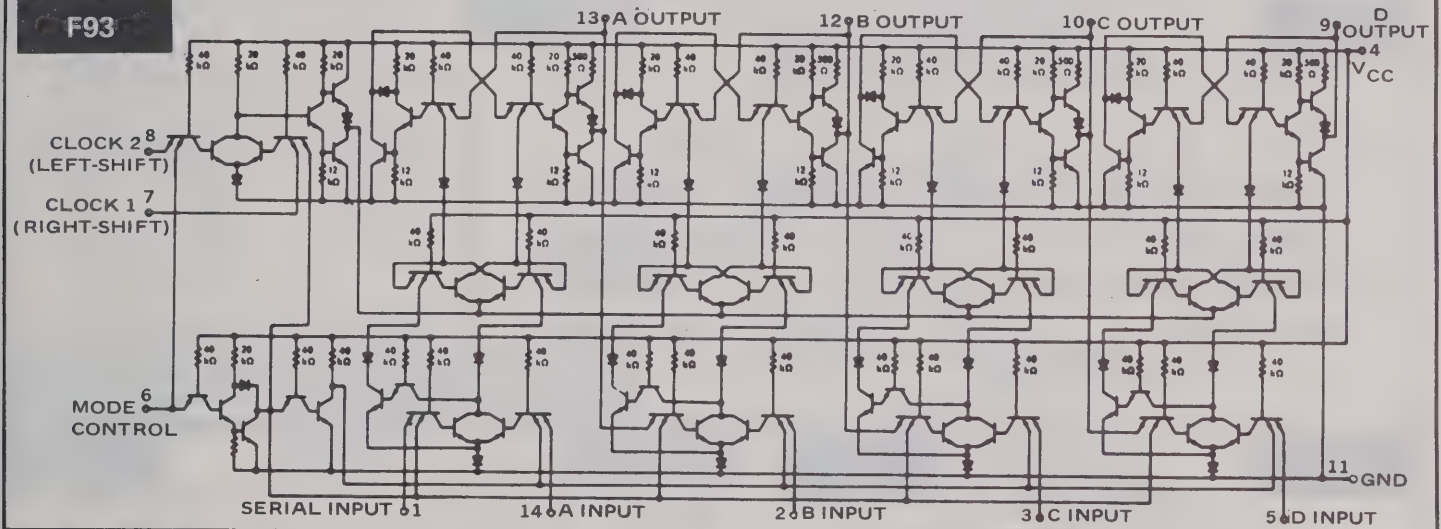
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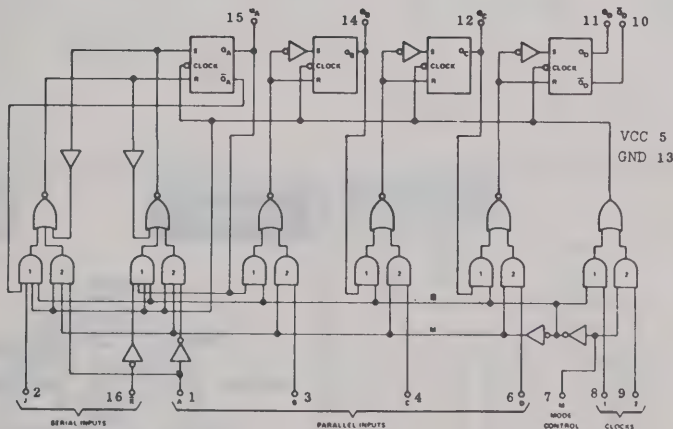
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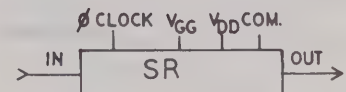
F93



F94



F95

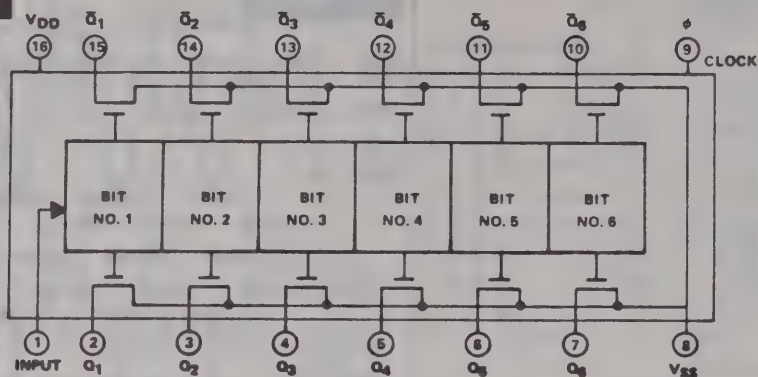


	CKT	NO. OF PINS	IN	OUT	VCC	VDD	COM
F95	1	25	1	2	4	7	3
	2	25	9	8	6	7	3
F95a	1	32	1	2	4	7	3
	2	32	9	8	6	7	3
F95c	1	50	1	2	4	7	3
	2	50	9	8	6	7	3
F95e	1	100	1	2	4	7	3
	2	100	9	8	6	7	3
F95d	1	128	1	2	4	7	3
	2	128	9	8	6	7	3
F95e	1	16	3	9	8	6	10
	2	16	4	7	2	6	10
F95f	1	100	1	2	5		8
	2	100	7	6	3		8
F95g	1	25	6	3	7	12	1
	2	25	8	2	7	12	1
	3	25	9	14	7	12	1
	4	25	11	13	7	12	1
F95h	1	64	1	2	3	5	4
	2	64	7	6	3	5	4

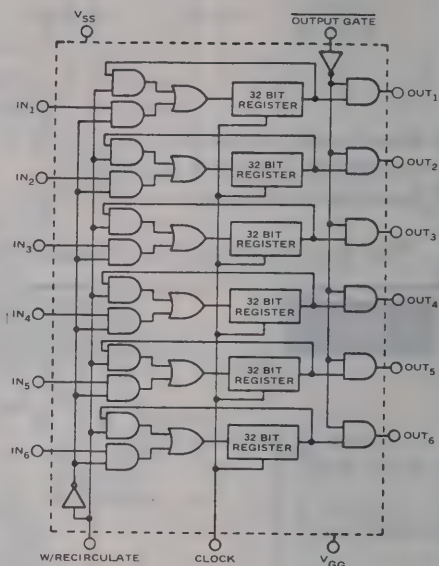
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

F96

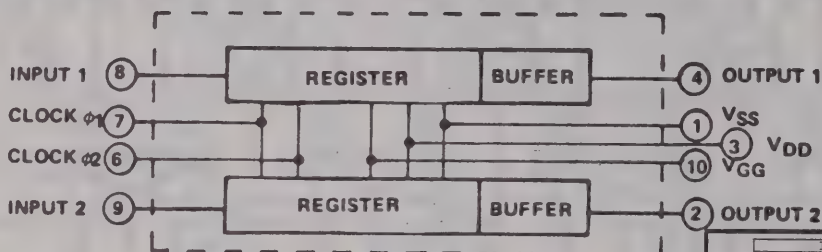


F98



F97

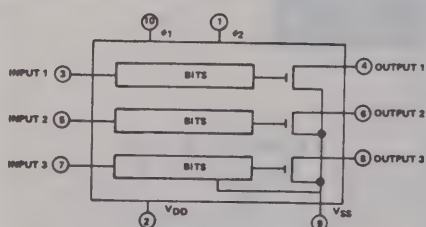
IN	CLOCK	C.T.P.	VSS	VGG	VDD
1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18



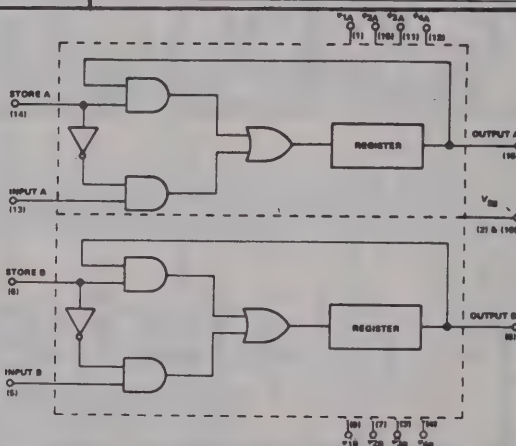
IN	OUT	W/RECIRCULATE	CLOCK	OUTPUT GATE	VGG	VSS
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21

F99

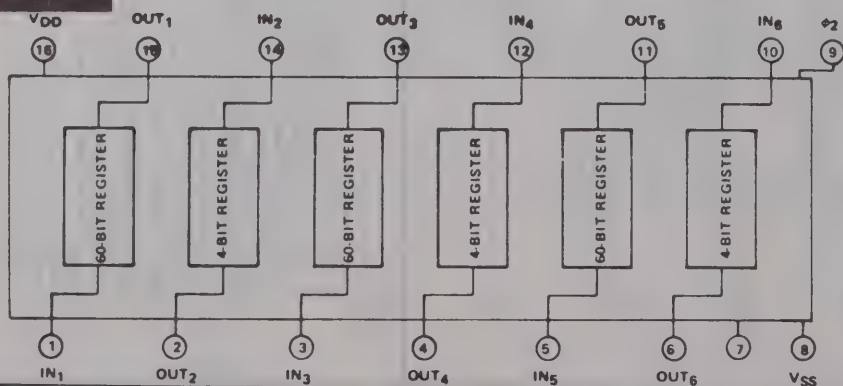
NO. OF BITS
66
64



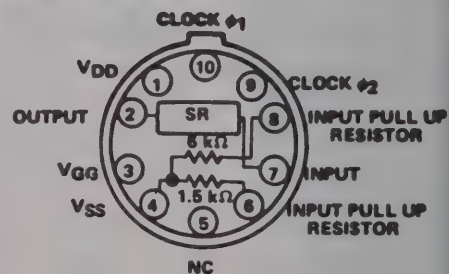
F100



F101



F102



IN DRAWING NUMBER
SEQUENCE

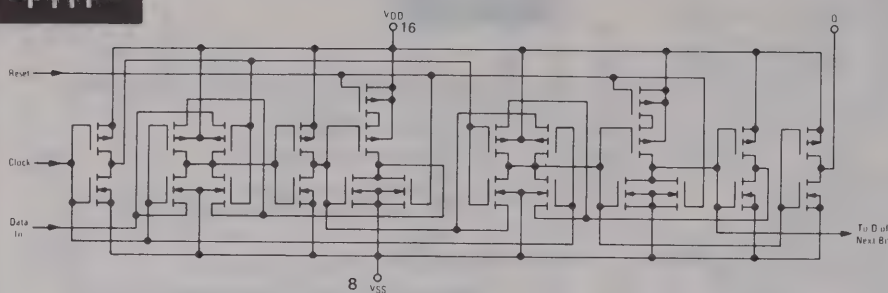
	CKT	PKG	IN	VPU	VBB	VDD	VGG	VSS	ØH	ØS	OUT
F105	1	CY	4	2	10	5	6	9	7	8	11
	2		3		13						12
F105a	1	ML	11	12	8	10	2	7	3	4	9
	2		1		5						6

[illegible]

SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

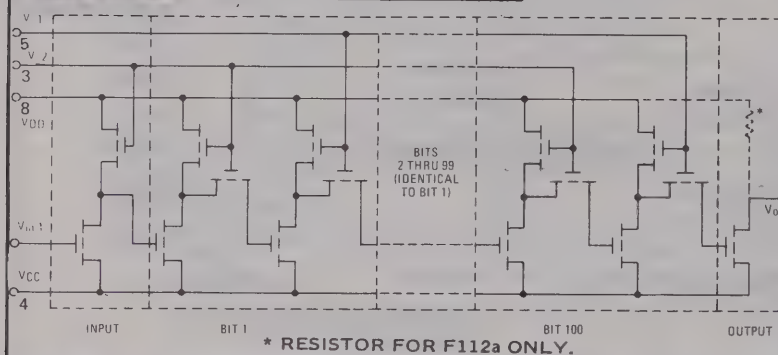
F111



	CKT	RESET	CLOCK	DATA IN	Q1	Q2	Q3	Q4
F111	1	6	9	7	5	4	3	10
	2	14	1	15	13	12	11	2

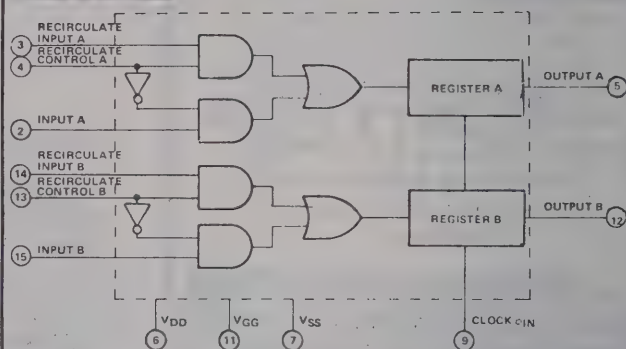
F112

F112,a	CKT	VIN	VOUT
	1	1	2
	2	7	6

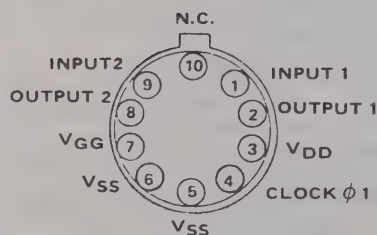


* RESISTOR FOR F112a ONLY.

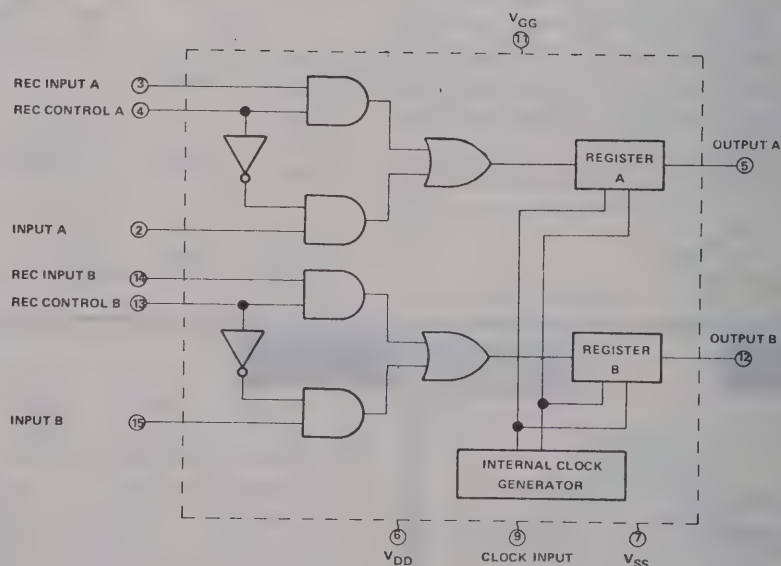
F113



F114

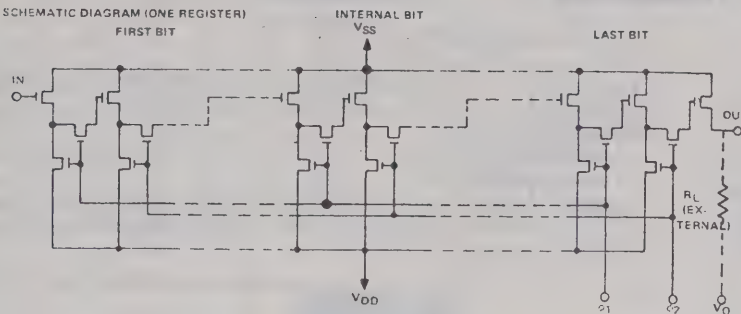


F115



F116

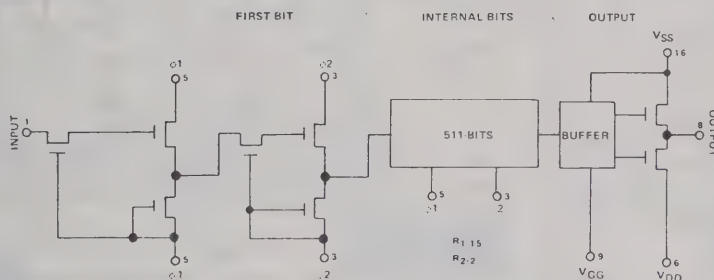
SCHEMATIC DIAGRAM (ONE REGISTER)
FIRST BIT



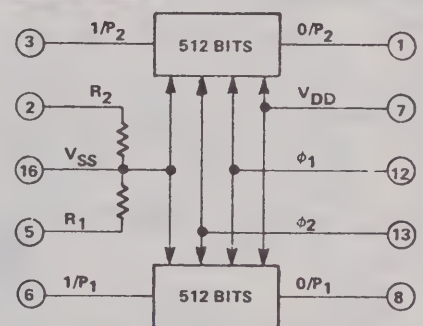
	REG	NO. OF BITS	IN	OUT	ϕ_1	ϕ_2	VDD	VSS
F116	1	60	1	15	7	9	16	8
	2	60	14	2				
	3	60	3	13				
	4	4	12	4				
	5	4	5	11				
	6	4	10	6				

F117

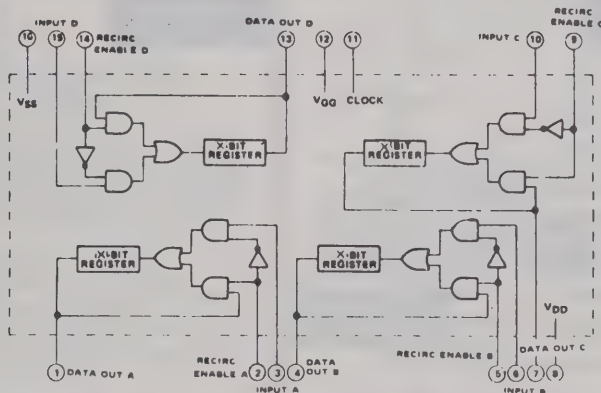
FIRST BIT INTERNAL BITS OUTPUT



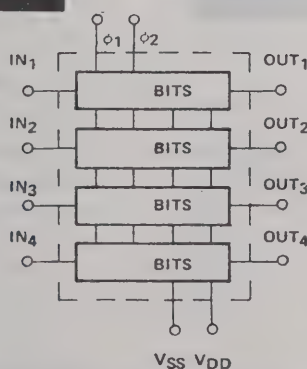
F118



F119



F120

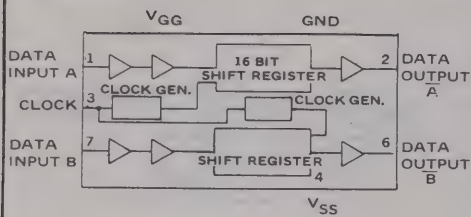


REG	BITS	IN	OUT	ϕ_1	ϕ_2	VSS	VDD	GND
F120	1	256	3	1	4	11	5	12
	2		8	6				
	3		10	9				
	4		16	14				
F120a	1	512	2	1	3	7	4	8
	2		6	5				
F120b	1	1024	2	5	3	7	4	8
F120c	1	512	3	14	4	11	5	12
	2		10	6				
F120d	1	1024	3	6	4	11	5	12
F120e	1	64	1	2	14	5	7	8
	2		3	4				
	3		9	10				
	4		11	12				
F120f	1	2	1	2	5	3	4	8
	2		7	6				
F120g	1	256	1	2	5	3	4	8
F120h	1	100	1	2	5	3		8
	2		7	6				
F120j	1	32	1	2	3		5	8
	2		7	6				
F120k	1	512	2	9	4	6	5	10

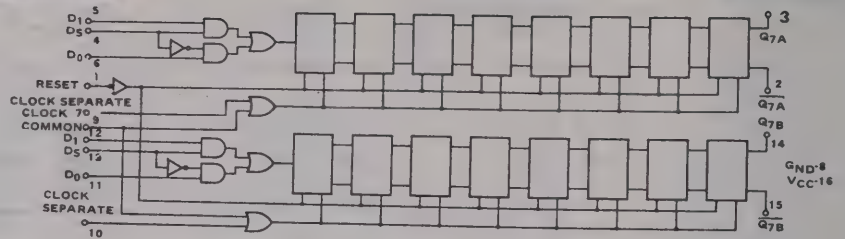
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

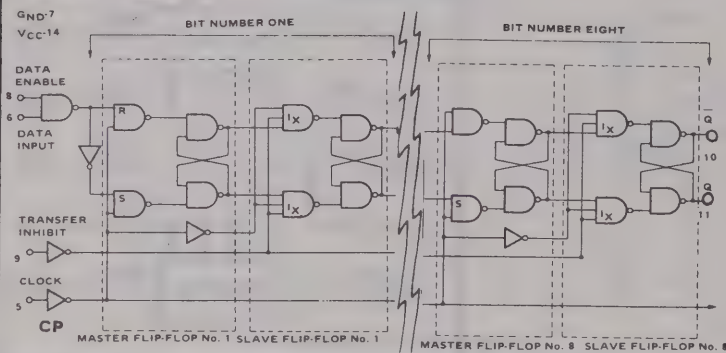
F121



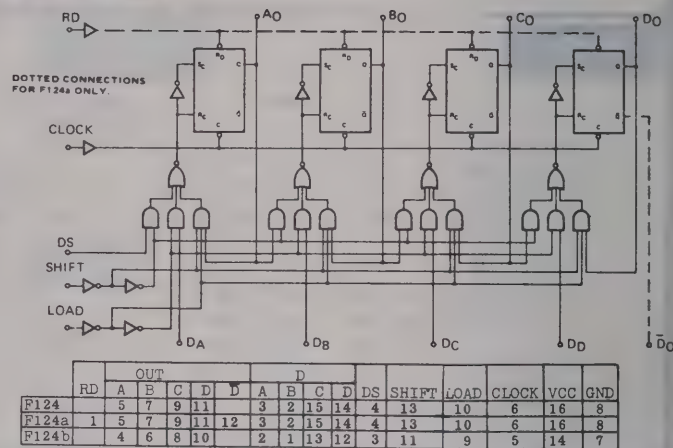
F122



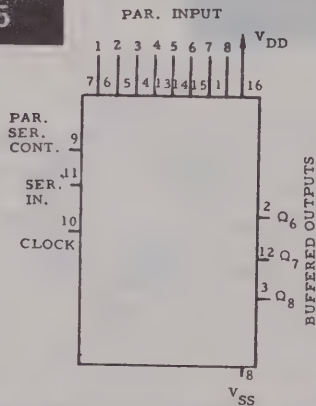
F123



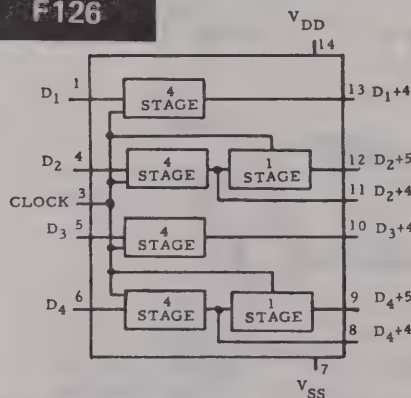
F124



F125



F126



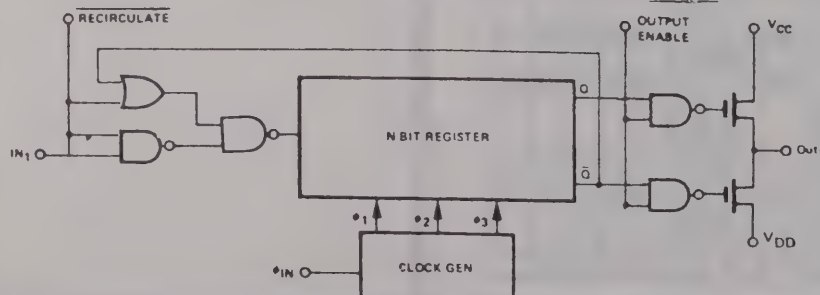
F127



	PKG	CKT	IN	OUT	CLOCK IN	CLOCK OUT	VCC	VDD
F127	CY	1	1	2	3	5	4	8
		2	7	6	3	5	4	8
F127a	ML	1	5	6	7	1	8	4
		2	3	2	7	1	8	4

F128

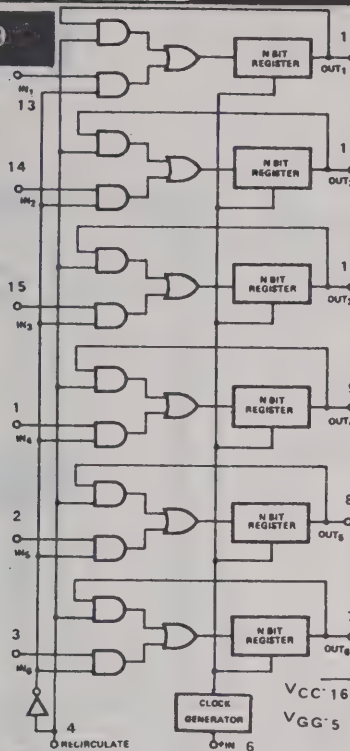
	PKG	CKT	RECIRCULATE	IN	OUT	QIN	OUTPUT ENABLE	VCC	VDD	VGG
F128	ML	1	1	2	3	8	9	14	7	10
		2		13	12					
F128a	CY	1	10	1	2	4	6	5	3	7
		2		9	8					



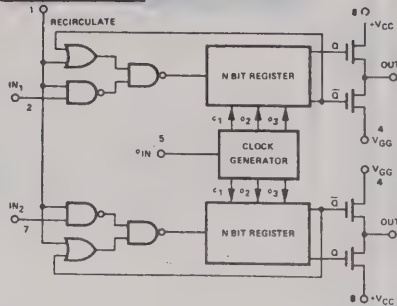
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

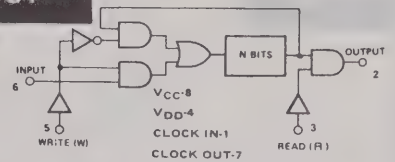
F129



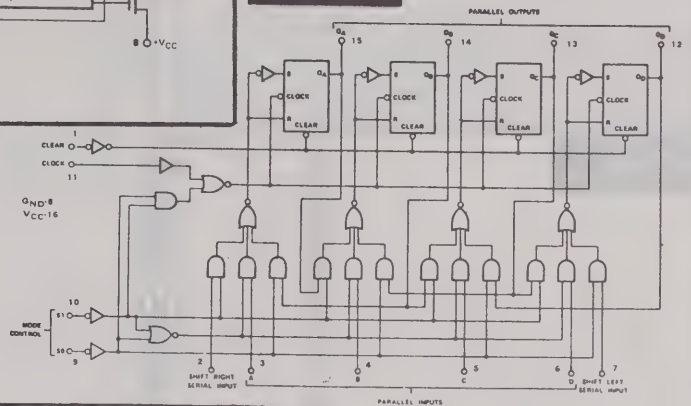
F130



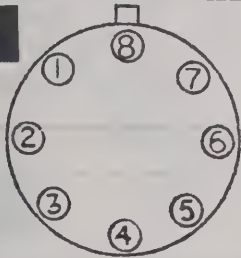
F131



F132

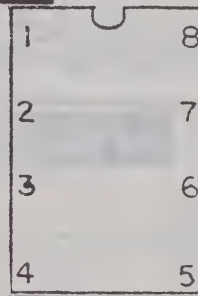


F133



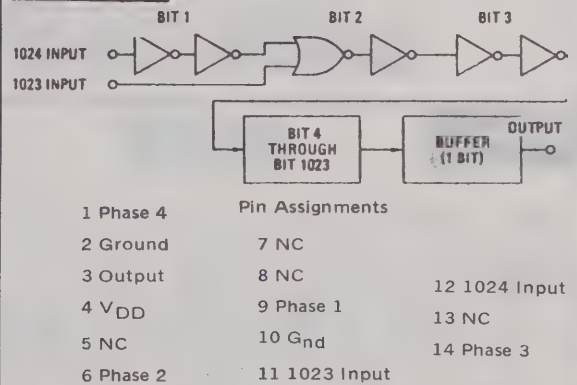
	1	2	3	4	5	6	7	8
F133	O1	In1	O1	VCC	O2	In2	O2	VDD
F133a	NC	In	O1	VCC	OUT	NC	O2	VDD
F133b	InA	OUTA	O1n	VSS	OUT	OUTB	InB	VGG
F133c	NC	IN	O1	VSS	OUT	INT.	O2	VDD
						RES.		

F134

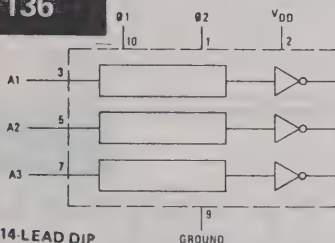


	1	2	3	4	5	6	7	8
F134	O1	In1	O1	VCC	O2	In2	O2	VDD
F134a	NC	In	O1	VCC	OUT	NC	O2	VDD
F134b	NC	OUT	O1n	VSS	OUT	In	In	VGG
F134c	O2	I2	O2	VDD	O1	I1	O1	VCC
F134d	OUT	I2	NC	VDD	IN	O1	NC	VCC

F135



F136



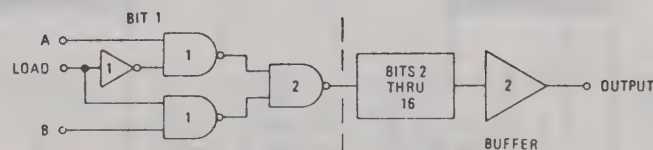
14-LEAD DIP
14-LEAD FLATPACK

10-LEAD TQ-100

PIN ASSIGNMENTS
1 Clock 2 (O2)
2 Supply Voltage VDD
3 Input A1
4 NC
5 Output B1
6 NC
7 Input A2
8 NC
9 Output B2
10 Input A3
11 Output B3
12 Ground
13 Clock 1 (O1)
14 NC

PIN ASSIGNMENTS
1 Clock 2 (O2)
2 Supply Voltage VDD
3 Input A1
4 Output B1
5 Input A2
6 Output B2
7 Input A3
8 Output B3
9 Ground
10 Clock 1 (O1)

F137



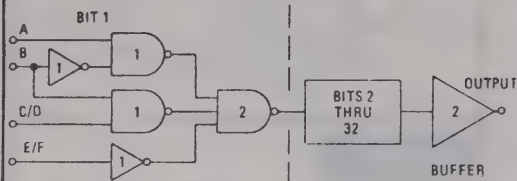
PIN ASSIGNMENTS

1 Ground
2 A1
3 Load 1
4 B1
5 Not Used
6 Z1
7 Z4
8 Not Used
9 B4
10 Load 4
11 A4
12 O1
13 VCC
14 A3
15 Load 3
16 B3
17 Not Used
18 Z3
19 Z2
20 Not Used
21 B2
22 Load 2
23 A2
24 O2

SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

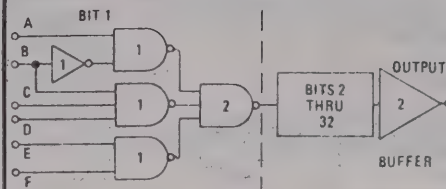
F138



PIN ASSIGNMENTS

1	Ground
2	A1
3	B1
4	C1/D1
5	E1/F1
6	Z1
7	Z4
8	E4/F4
9	C4/D4
10	B4
11	A4
12	01
13	VCC
14	A3
15	B3
16	C3/D3
17	E3/F3
18	Z3
19	Z2
20	E2/F2
21	C2/D2
22	B2
23	A2
24	02

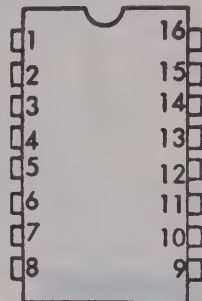
F139



PIN ASSIGNMENTS

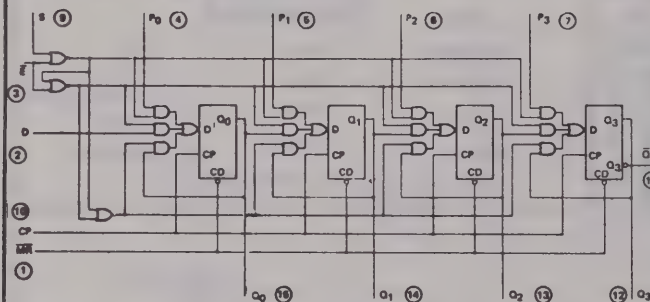
1	Ground	1	GROUND
2	A1	2	A1
3	B1	3	B1
4	C1	4	C1 34-LEAD
5	D1	5	D1 FLATPACK
6	E1	6	E1
7	F1	7	F1
8	Z1	8	Z1
9	Z4	9	Z4
10	E4	10	E4
11	C4	11	C4
12	B4	12	B4
13	A4	13	A4
14	01	14	01
15	VCC	15	VCC
16	A3	16	A3
17	B3	17	B3
18	C3	18	C3
19	D3	19	D3
20	E3	20	E3
21	F3	21	F3
22	Z3	22	Z3
23	Z2	23	Z2
24	E2	24	E2
25	C2	25	C2
26	B2	26	B2
27	A2	27	A2
28	02	28	02

F140

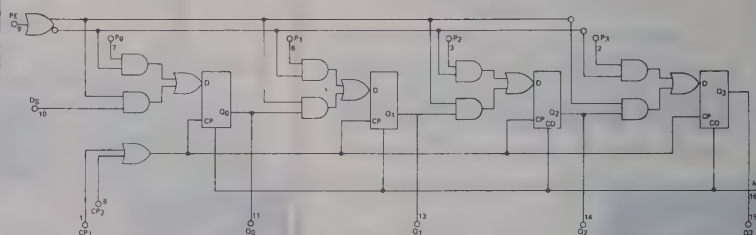


PIN NUMBERS															
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
F140	OUT1	NC	In1	01	VCC	OUT2	NC	In2	OUT3	In3	02	VDD	NC	OUT4	NC
F140a	0OUT	NC	InA	OUTA	InB	OUTB	NC	VSS	NC	InC	OUTC	InD	OUTD	NC	0In
F140b	0OUT	NC	NC	InA	OUTA	InB	NC	VSS	NC	NC	OUTB	InC	OUTC	NC	0In

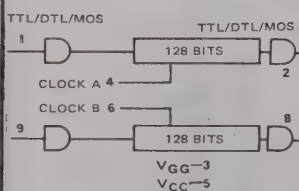
F141



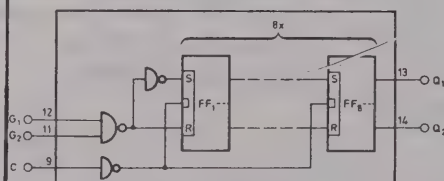
F142



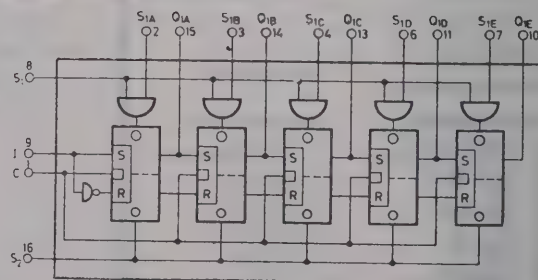
F143



F144



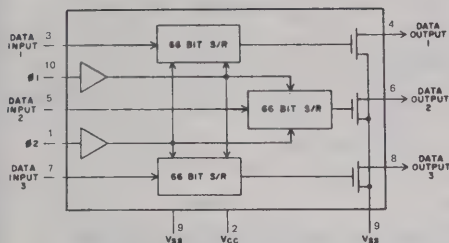
F145



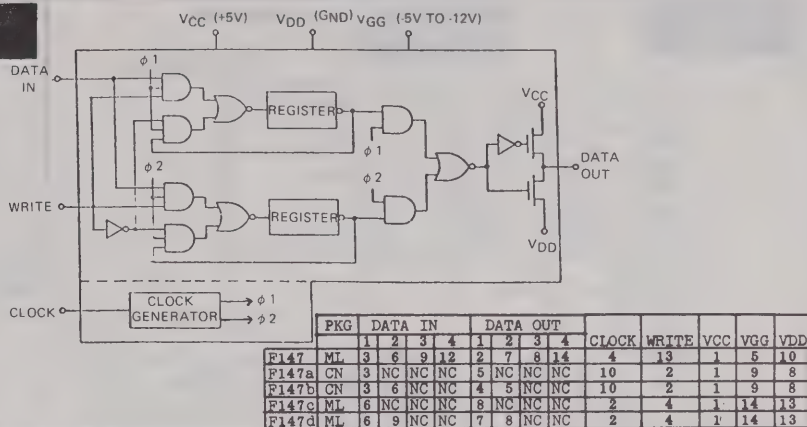
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

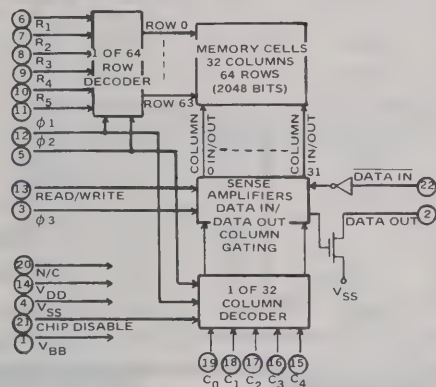
F146



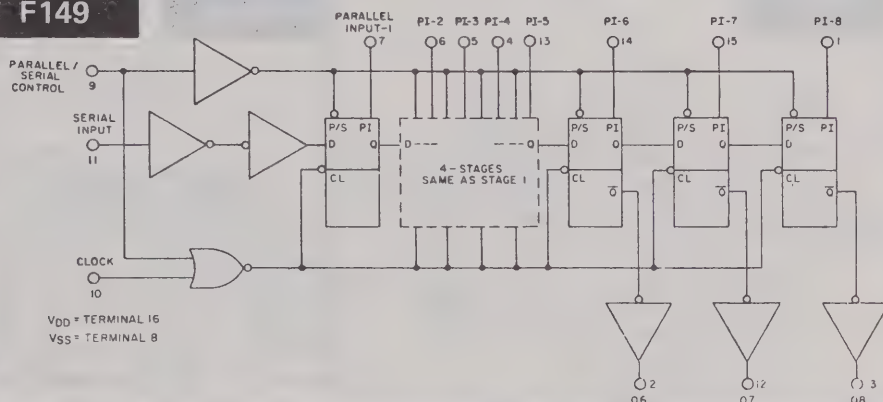
F147



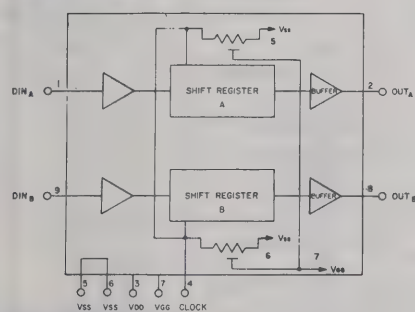
F148



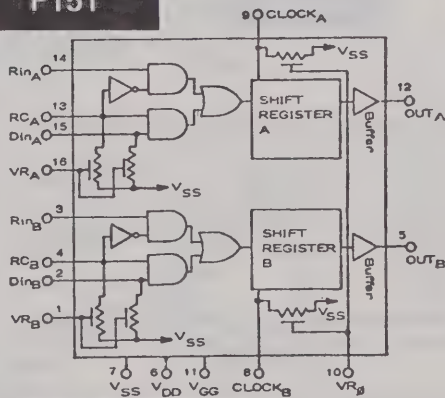
F149



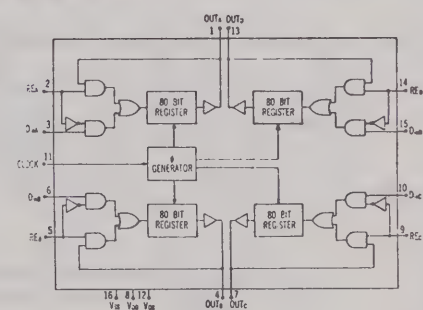
F150



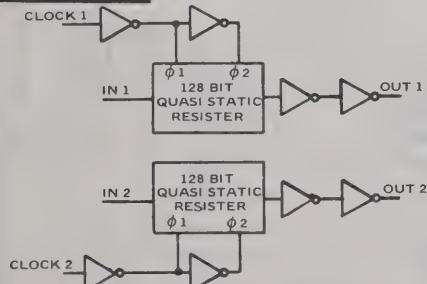
F151



F152

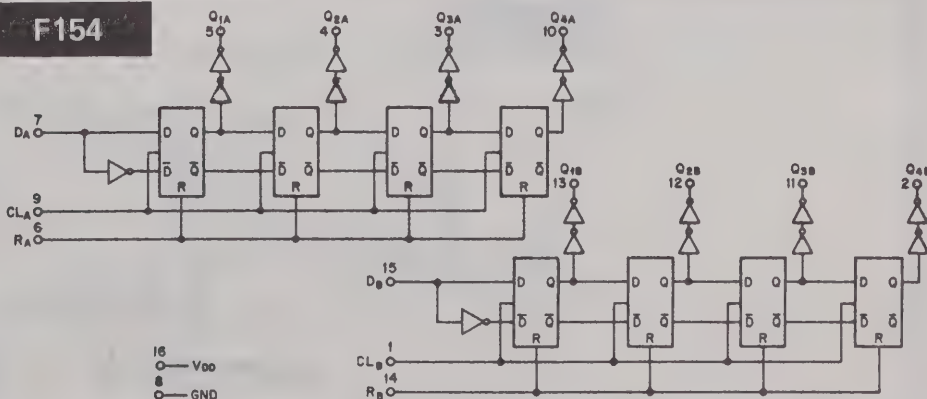


F153



	Pkg	Clock	In	Out	Vss	Vdd
F153	CY	1 2 1 2	1 2	1 2	4	
F153a	FP	3 5 1 7	2 6	8	4	
F153b	ML	13 2 10 5	12 3	7 14		

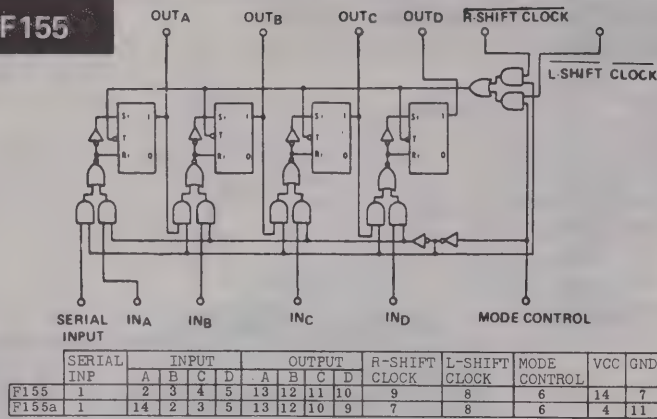
F154



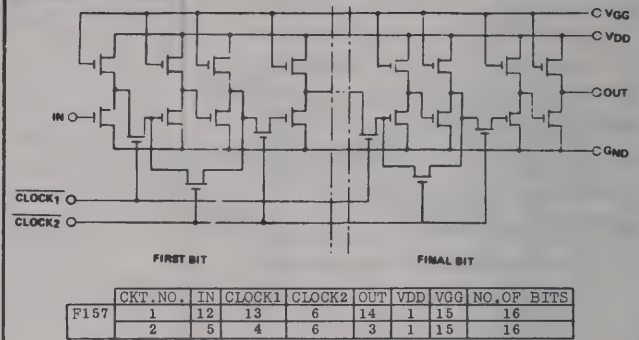
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

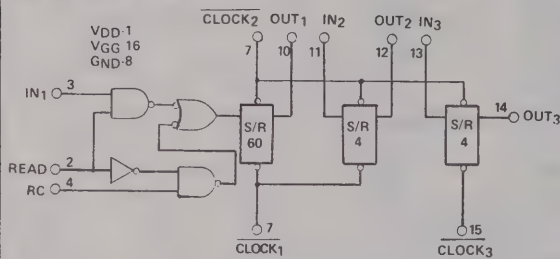
F155



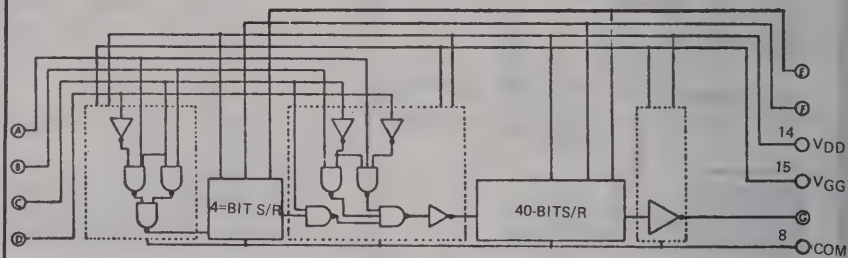
F157



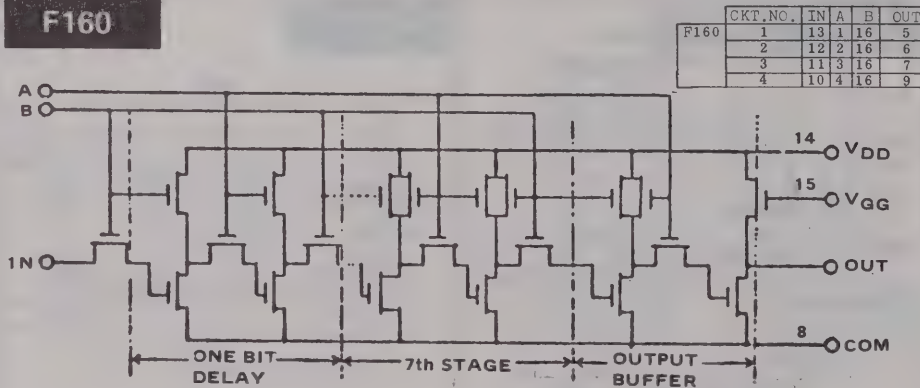
F158



F159

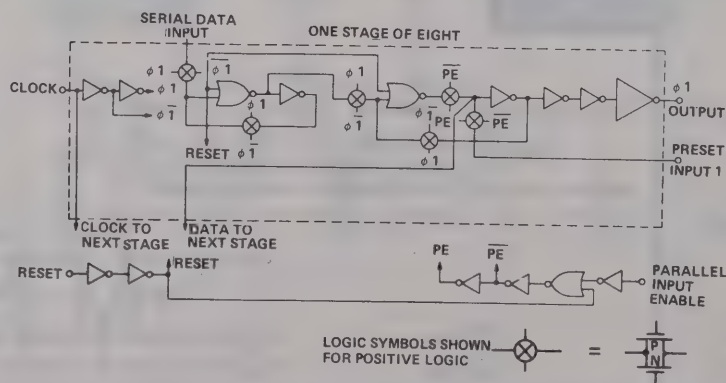


F160



F161

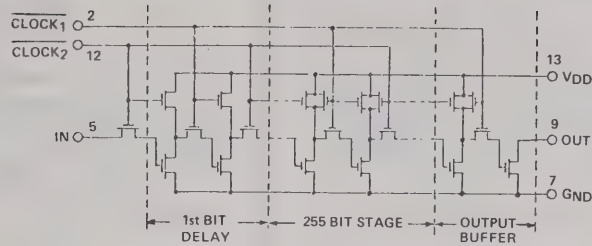
FUNCTION	PIN LOCATION	
	F.P.	D.I.L.
Clock	1	1
Serial Data Input	2	2
Q ₁ Output	3	3
Q ₂ Output	4	4
Q ₃ Output	5	5
Q ₄ Output	6	6
Q ₅ Output	7	7
Q ₆ Output	8	8
Q ₇ Output	9	9
Q ₈ Output	10	10
V _{SS} (Ground)	11	11
Reset	12	14
Parallel-In-Enable	13	15
Data Input 8	14	16
Data Input 7	15	17
Data Input 6	16	18
Data Input 5	17	19
Data Input 4	18	20
Data Input 3	19	21
Data Input 2	20	22
Data Input 1	21	23
V _{DD}	22	24



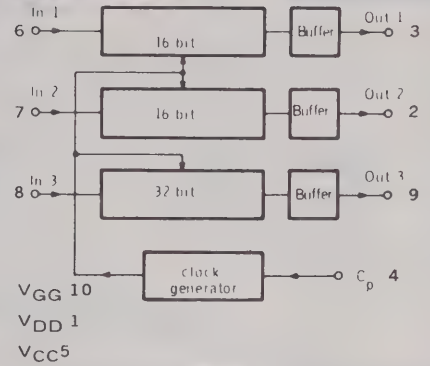
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

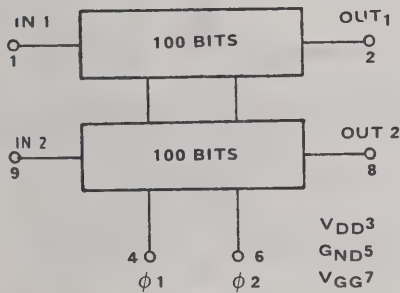
F162



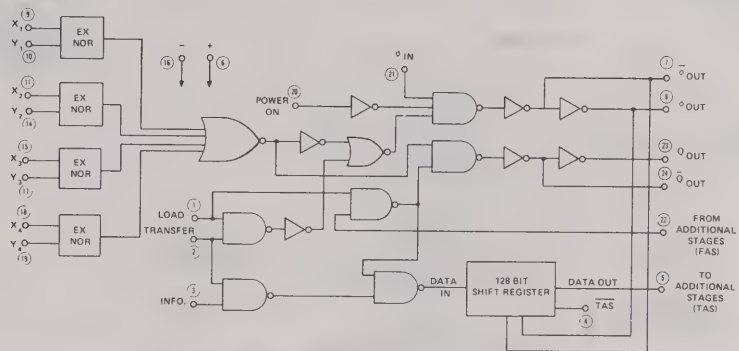
F163



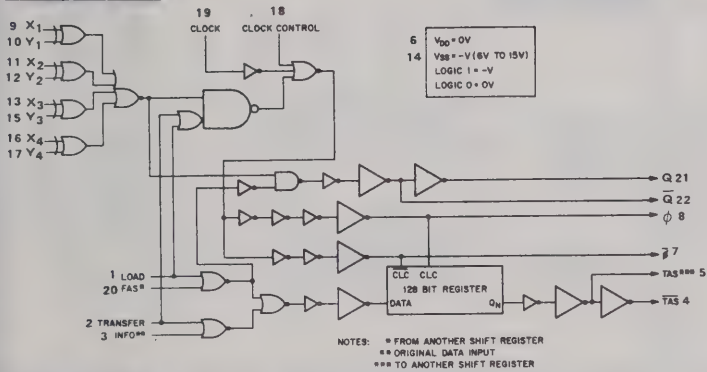
F164



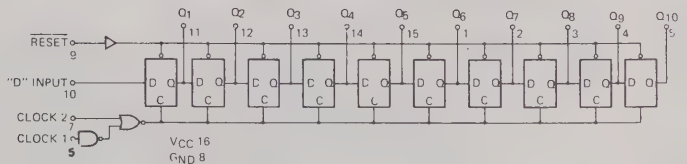
F165



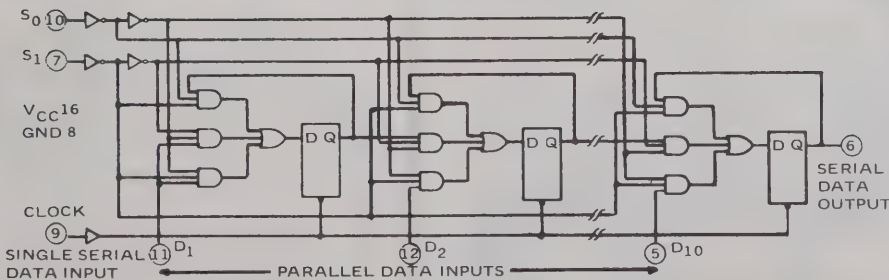
F166



F167



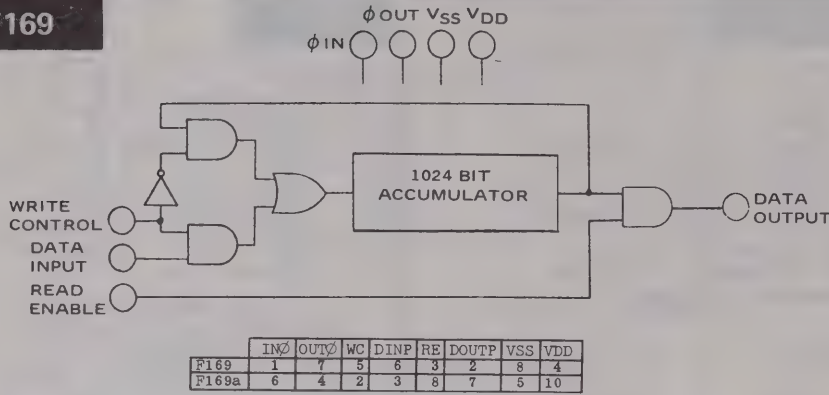
F168



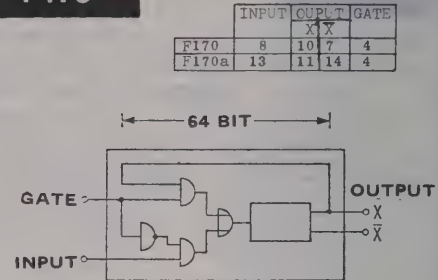
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

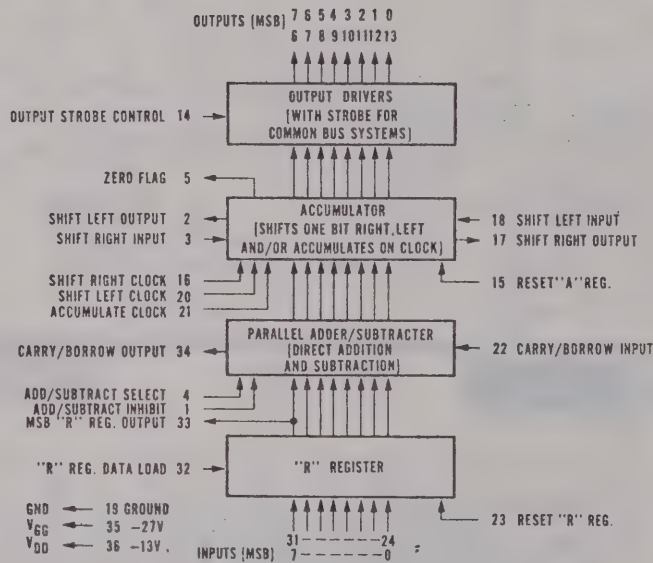
F169



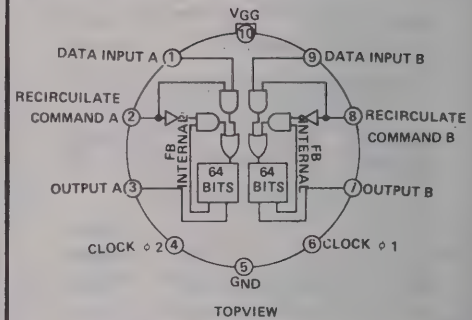
F170



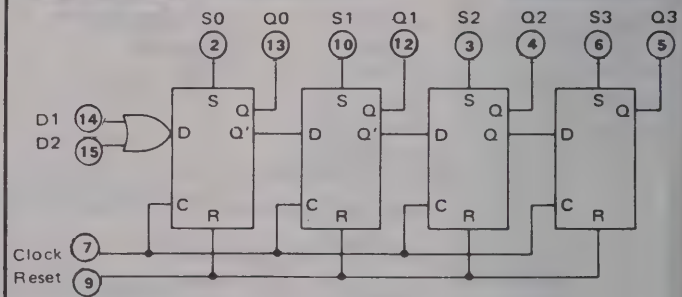
F171



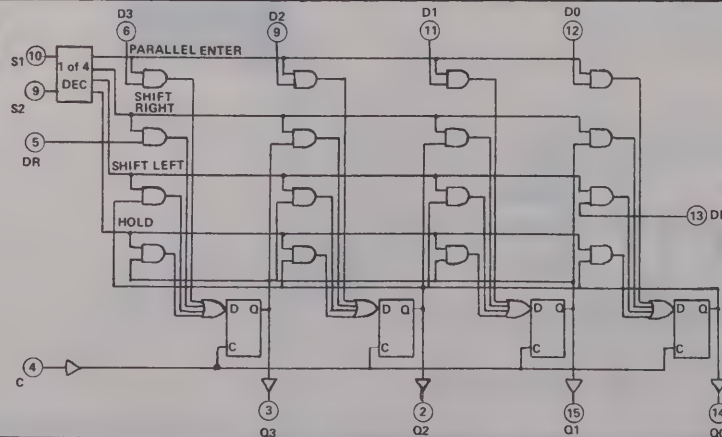
F172



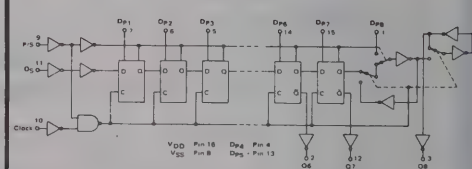
F173



F174



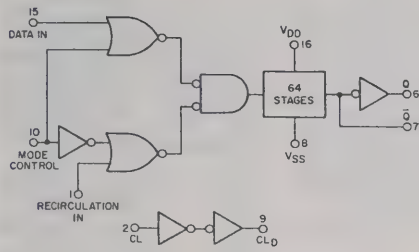
F175



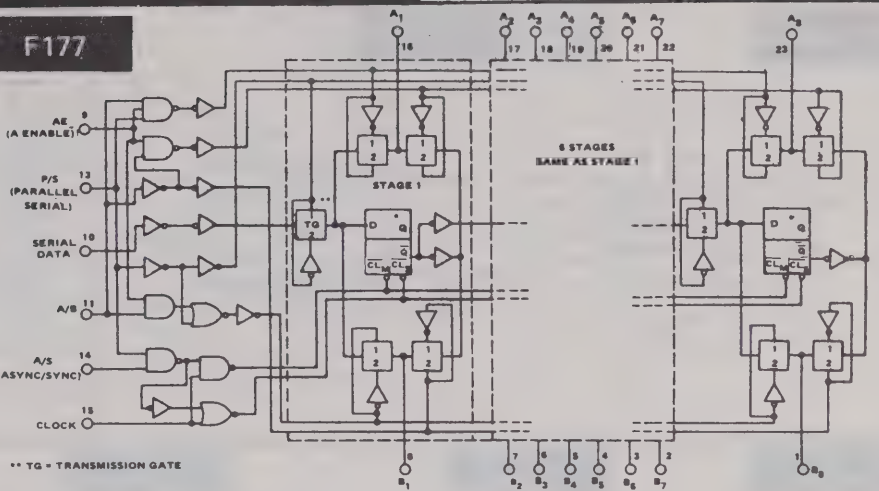
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

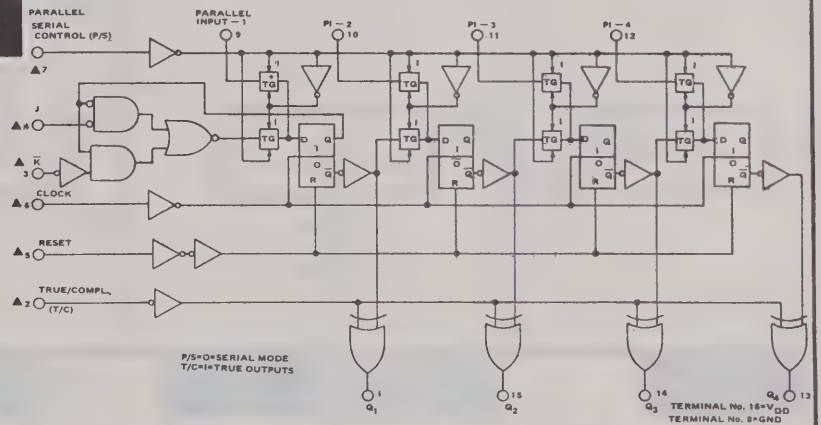
F176



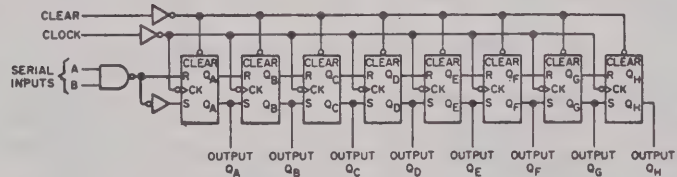
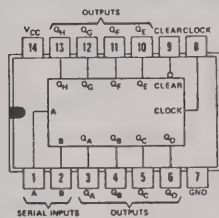
F177



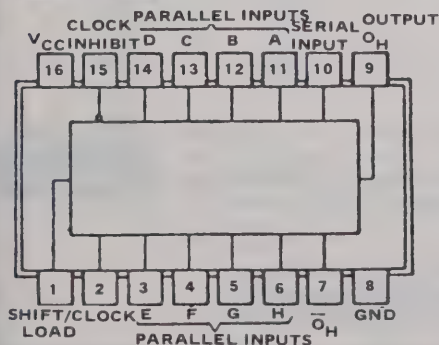
F178



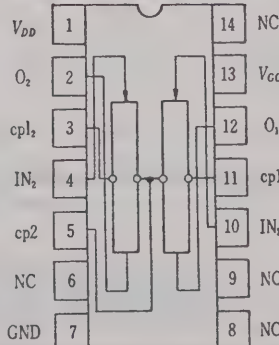
F179



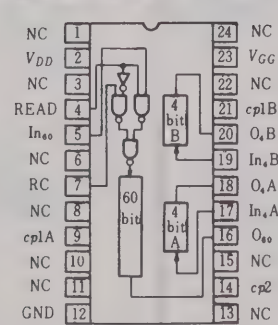
F180



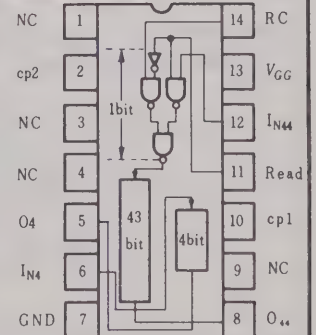
F181



F182



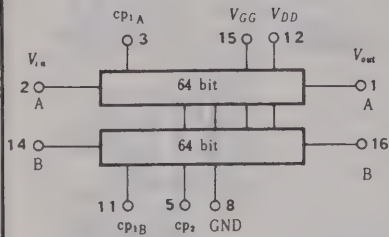
F183



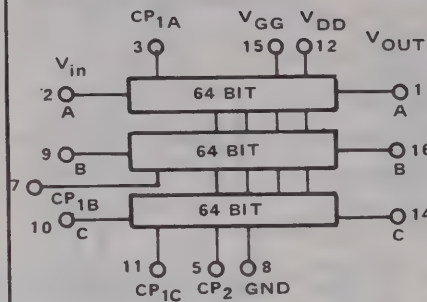
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

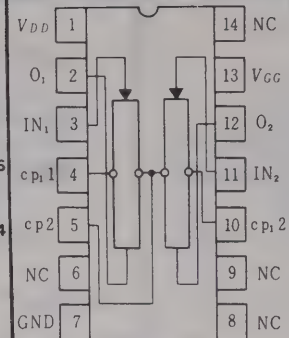
F184



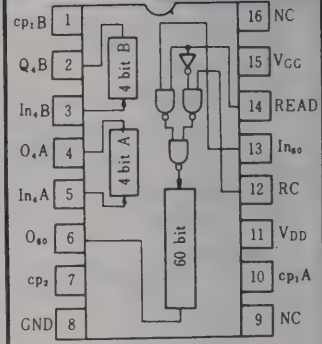
F185



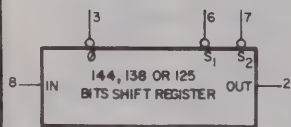
F186



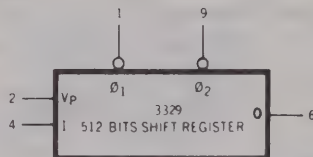
F187



F188

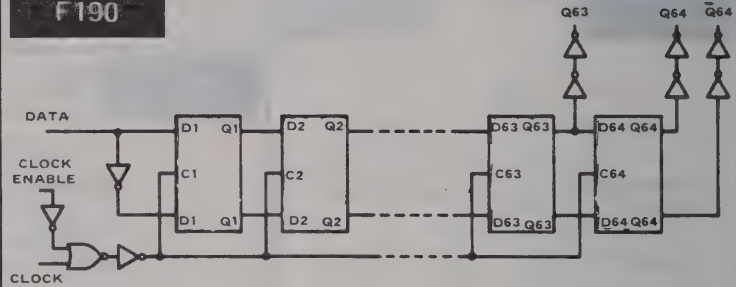


F189



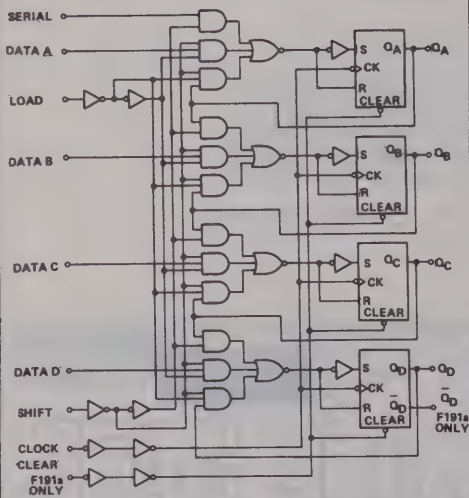
V_{SS} = PIN 5
V_{DD} = PIN 10
V_{GG} = PIN 8

F190



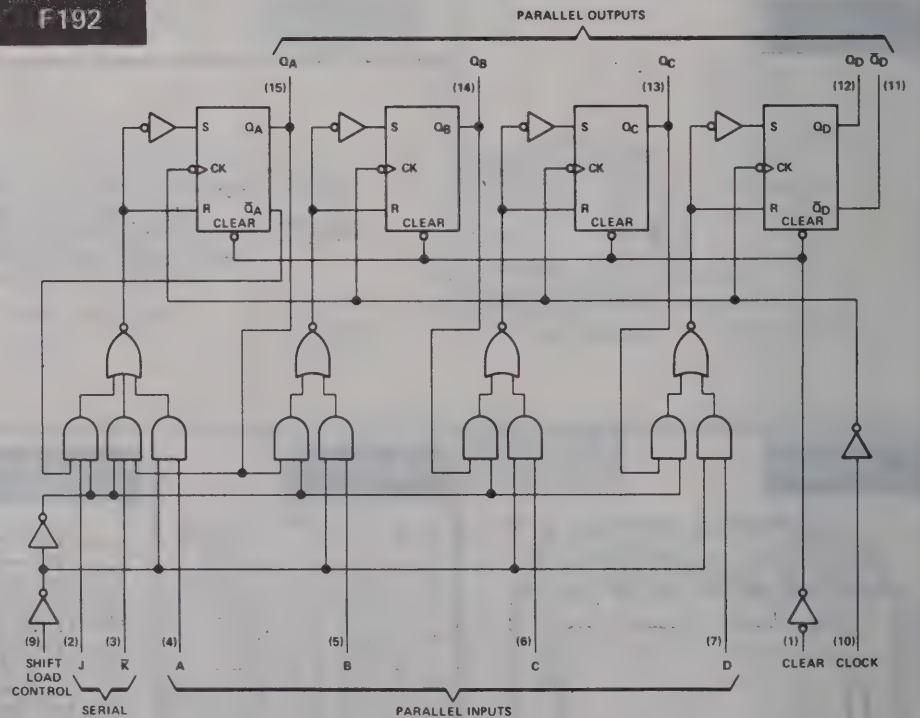
	Pkg	Data	Clock	Clock Enable	Q63	Q64	Q65	Vdd	Vss
F190	FP, ML	12	9	10	2	5	4	14	7
F190a	CV	7	3	4	9	1	10	5	2
F190b	CV	7	4	NC	NC	1	10	5	3

F191



Denotes input activated by a transition from a high level to a low level.

F192

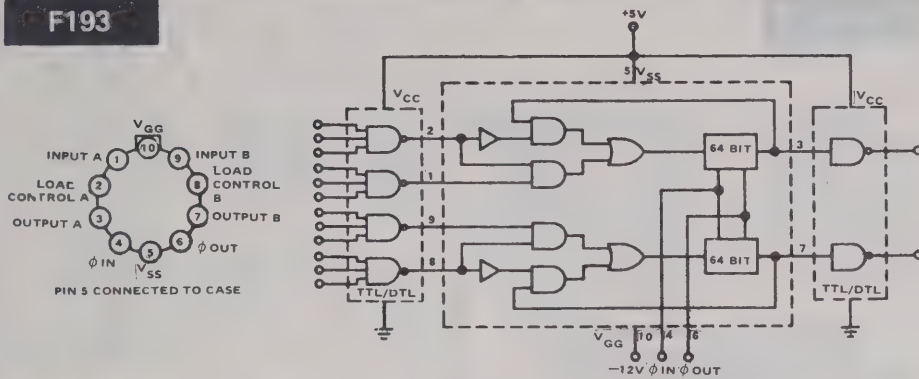


	DATA			SERIAL	SHIFT	CK	OUTPUT					LOAD	VCC	GND	
	A	B	C	D			E	F	G	H	I				J
F192	2	1	13	12	3	11	5	4	6	8	10	NA	9	14	7
F192a	3	2	15	14	4	13	6	5	7	9	11	12	10	16	8

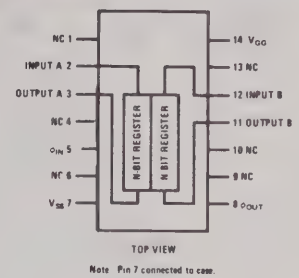
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

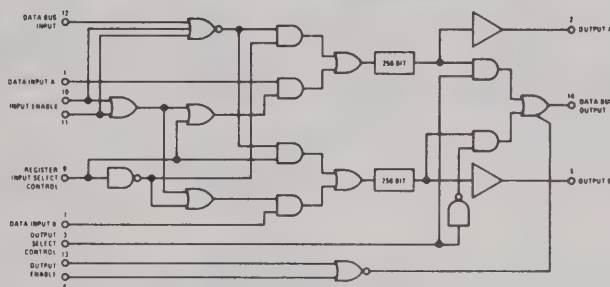
F193



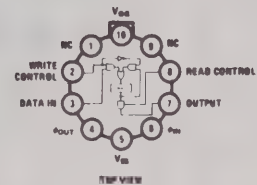
F194



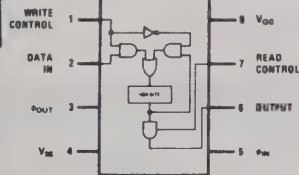
F195



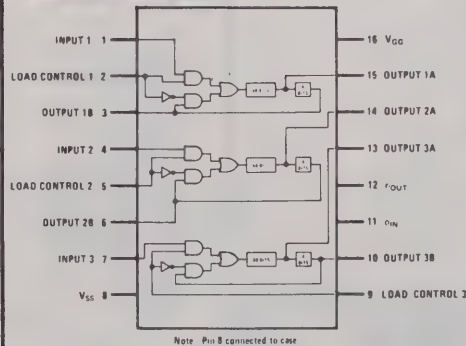
F196



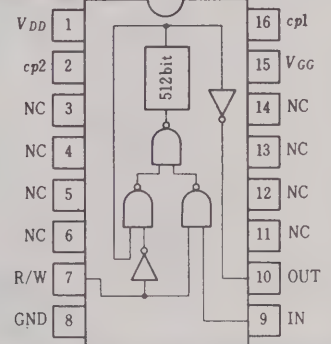
F197



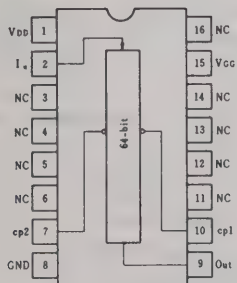
F198



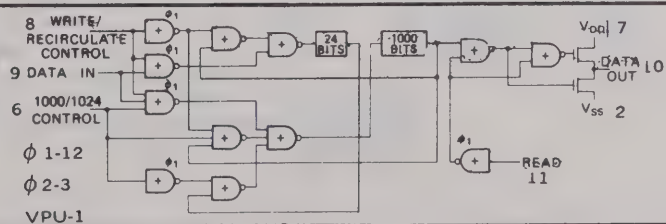
F199



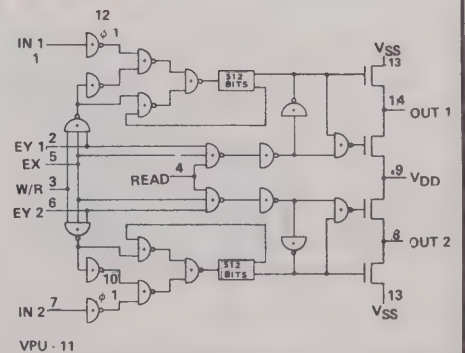
F200



F201



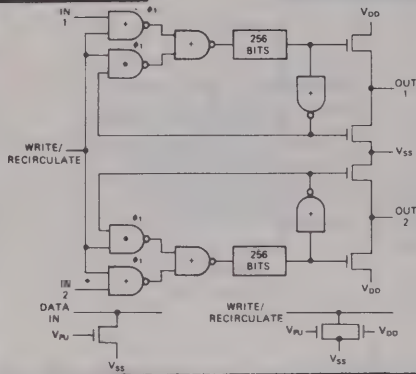
F202



SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

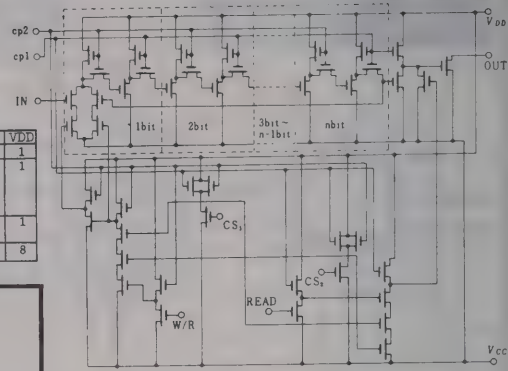
F203



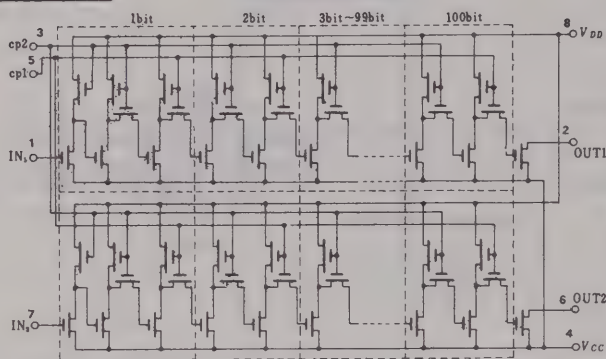
F204

	CKT NO.	IN	CP1	CP2	CS1	CS2	READ	W/R	OUT	VCC	VDD
F204	1	5	6	11	2	16	13	4	12	8	1
F204a	1	11	9	15			2	7	10	8	1
	2	14							12		
	3	4							3		
	4	6							5		
F204b	1	6	9	15			2	7	3	8	1
	2	14							10		
F204c	1	2	5	8			1	3	6	4	8

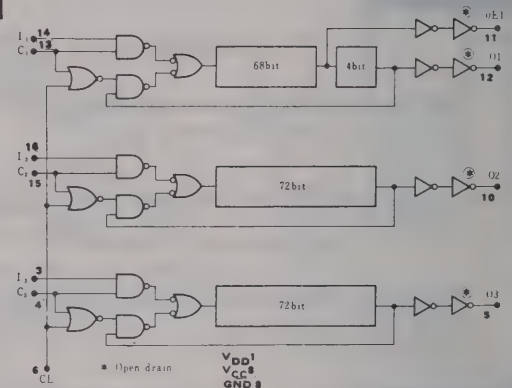
	IN	OUT	Q	1	2	VDD	VSS	VPU	W/R
F203	6	8	7	9	13	2	12	1	5
F203a	1	9	2	10	4	6	3	5	7



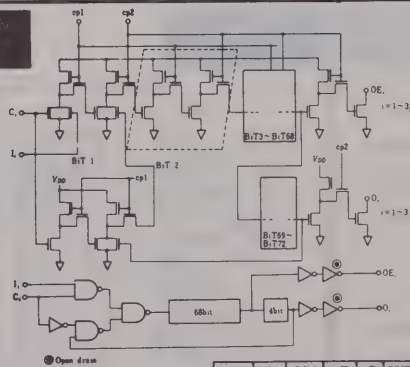
F205



F206



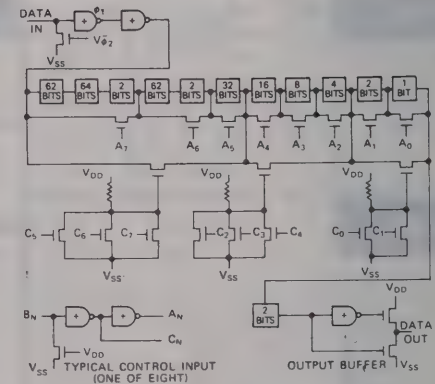
F207



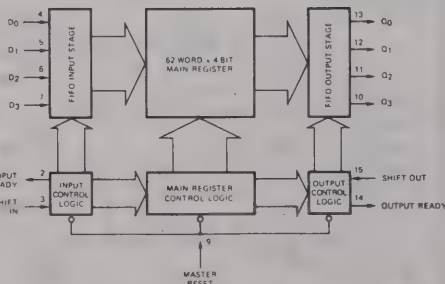
	CKT	CP1	CP2	I	C	OUT	OE	VCC(GND)	VDD
F207	1	7	2	14	13	12	11	8	1
	2			16	15	10	9		
	3			3	4	5	6		

F208

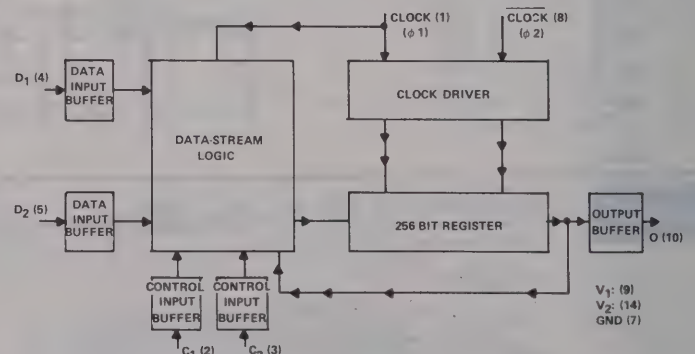
PIN	FUNCTION
1	B6
2	B7
3	B5
4	B3
5	B2
6	B4
7	B1
8	B0
9	DATA IN
10	OUT 2-257
11	VGG
12	Q1
13	Q2
14	VSS



F209



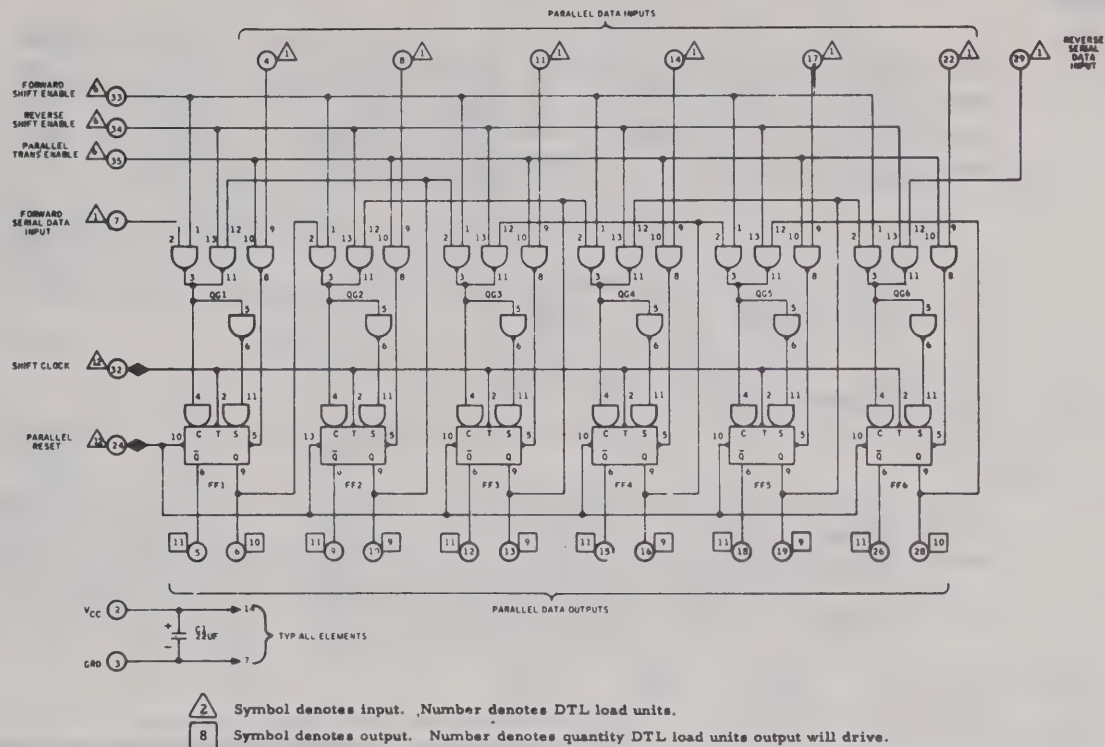
F210



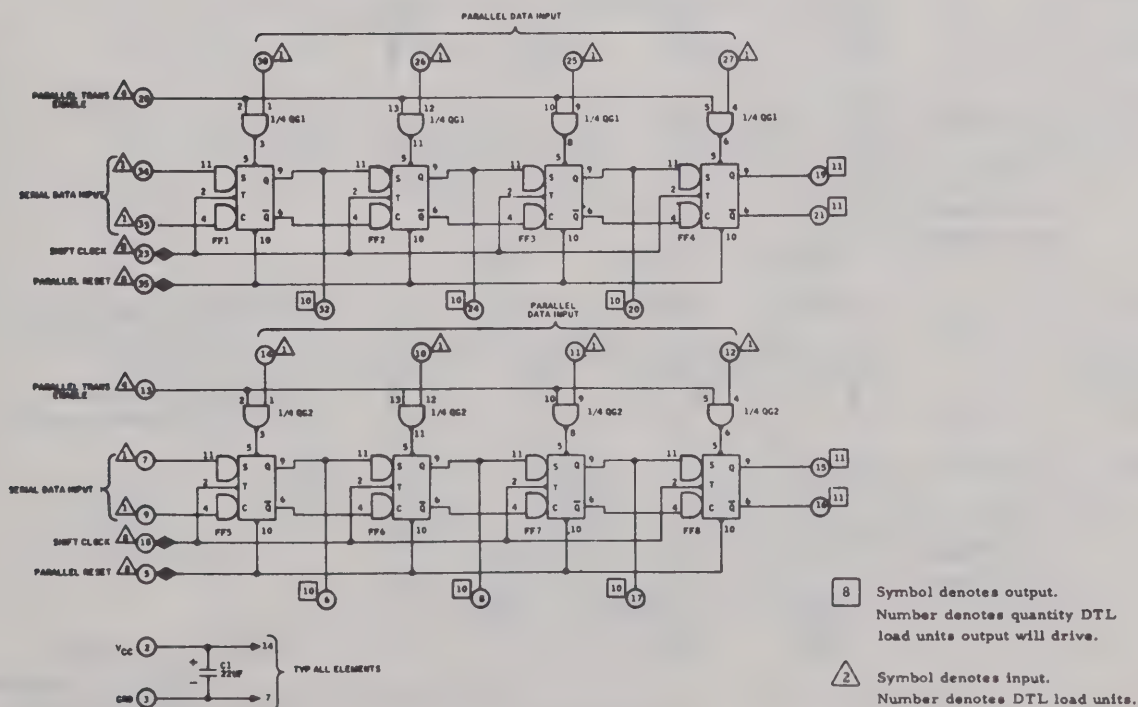
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

F211



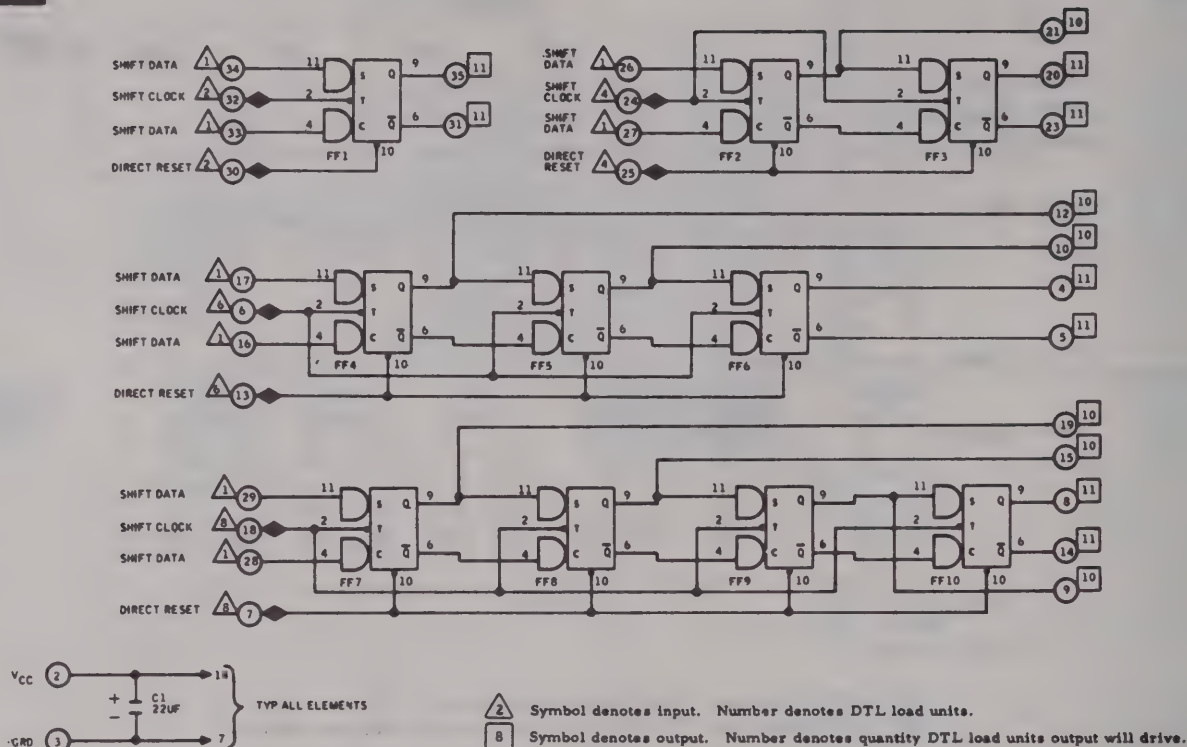
F212



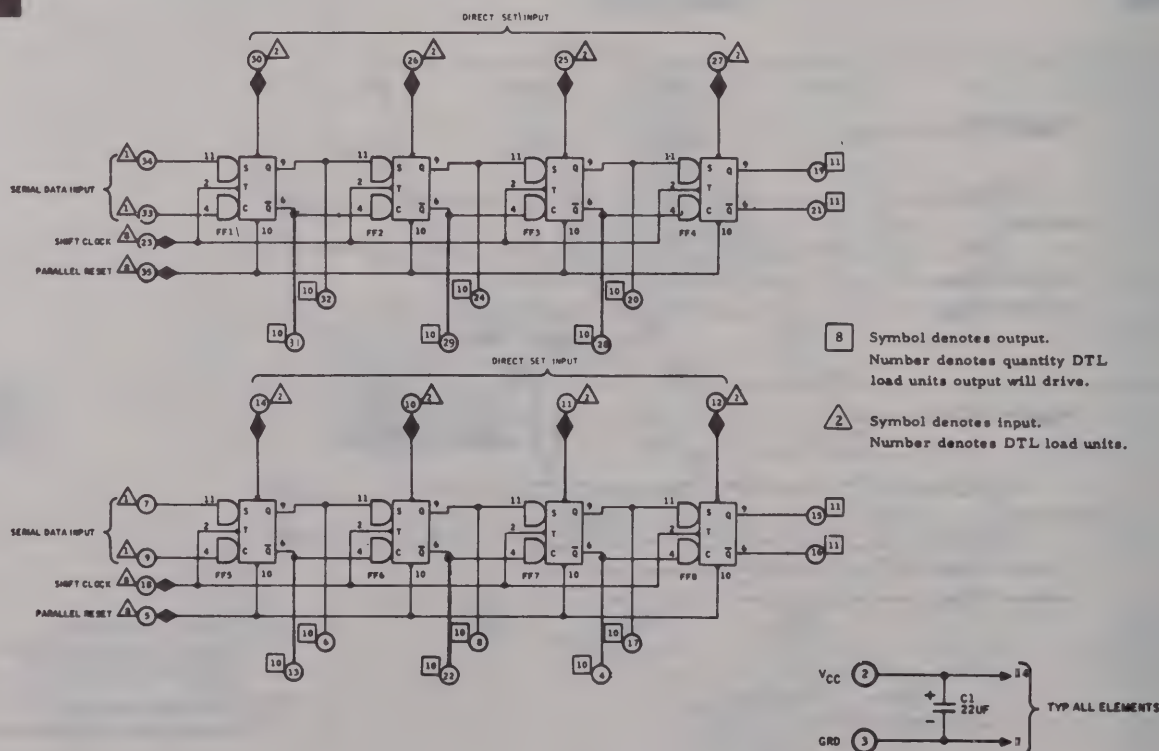
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

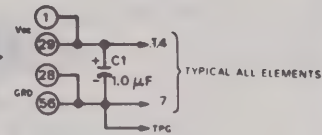
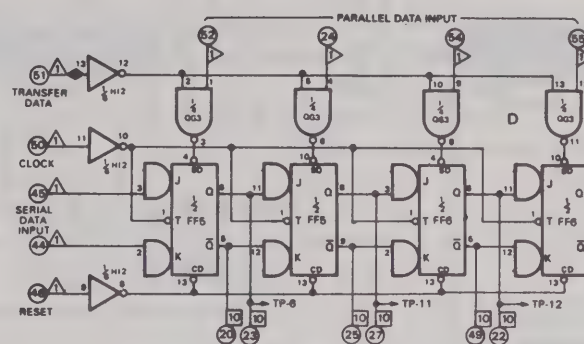
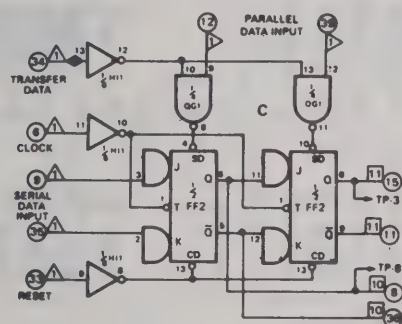
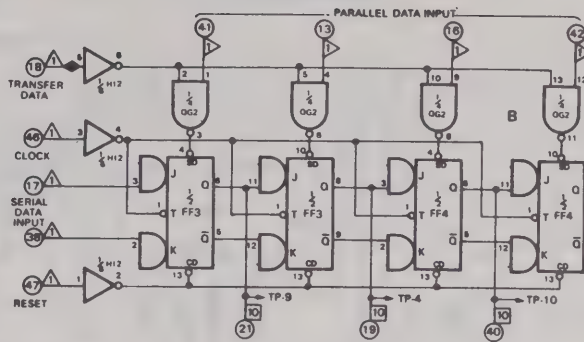
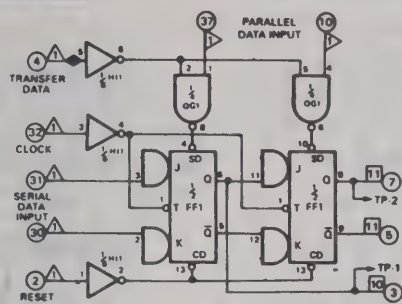
F213



F214

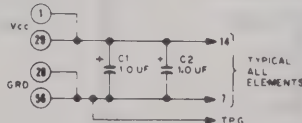
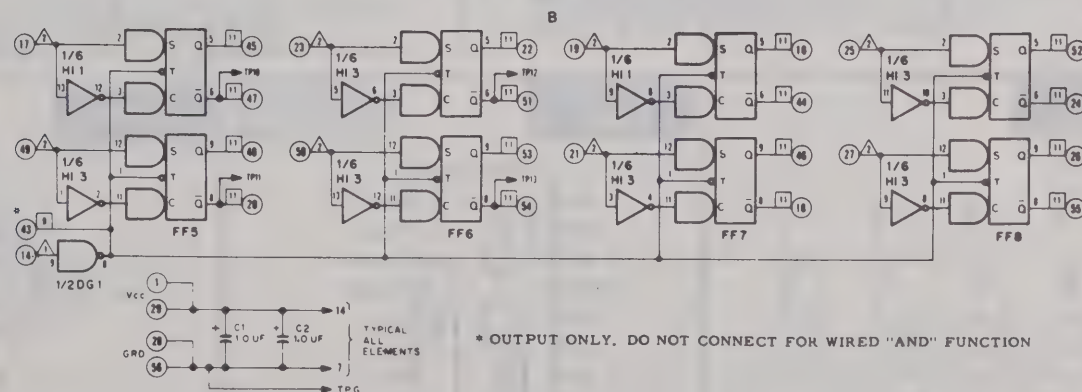
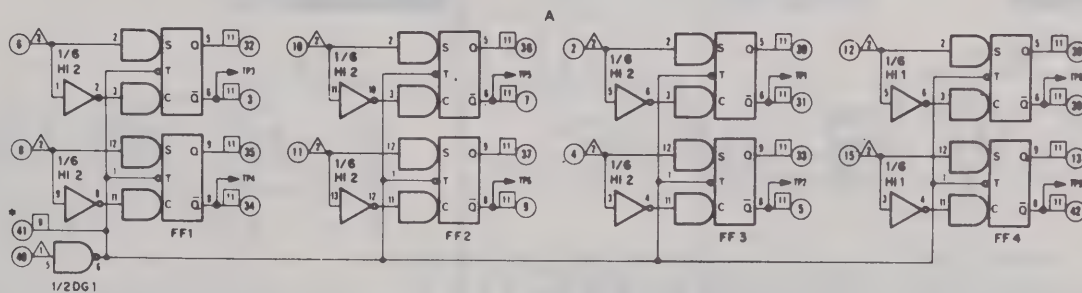


F215



- △ Symbol denotes input. Number denotes DTL load units.
□ Symbol denotes output. Number denotes quantity DTL load units output will drive.

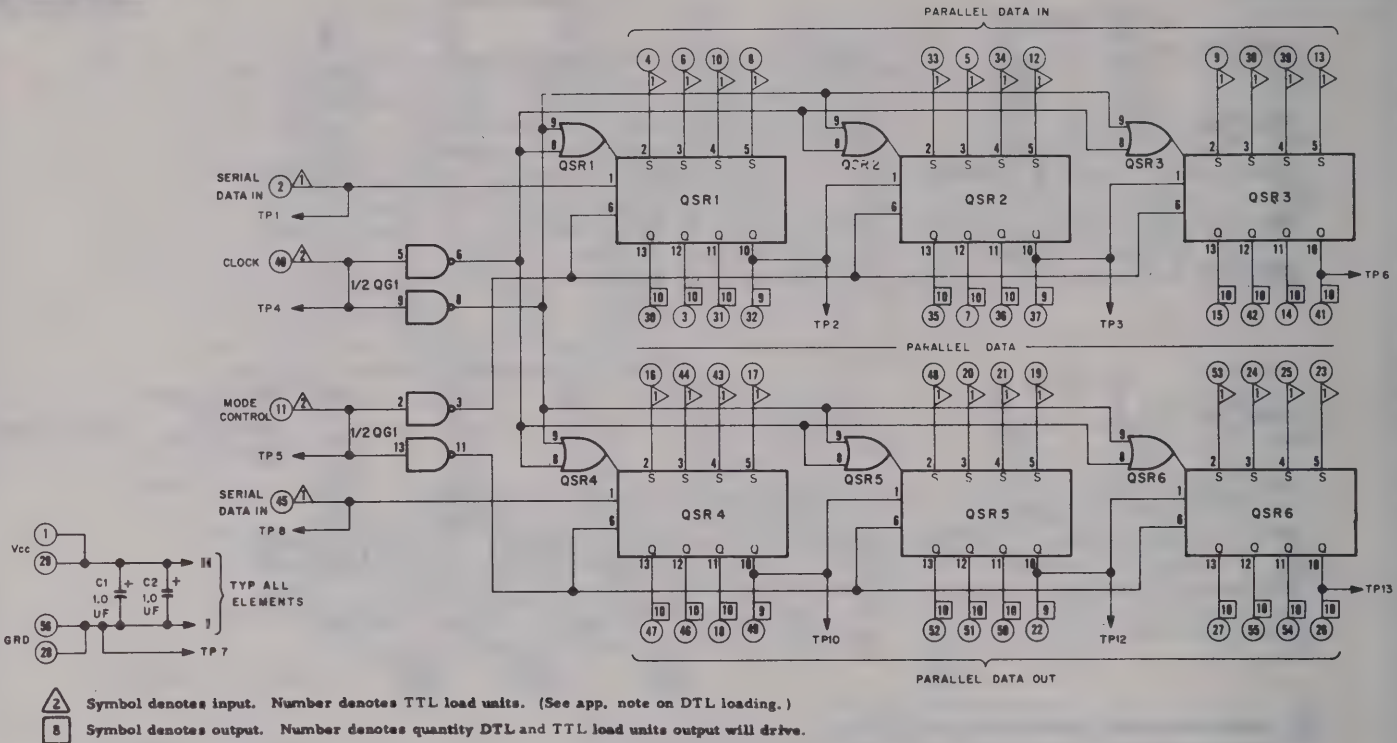
F216



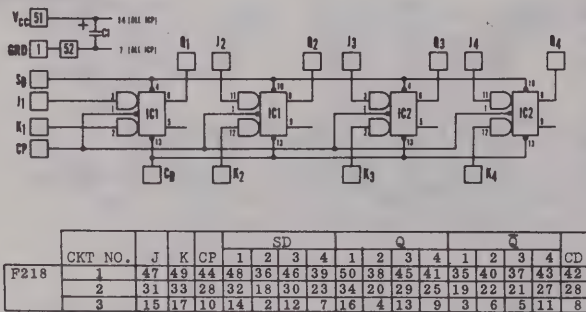
* OUTPUT ONLY. DO NOT CONNECT FOR WIRED "AND" FUNCTION

- △ Symbol denotes input. Number denotes DTL load units.
□ Symbol denotes output. Number denotes quantity DTL load units output will drive.

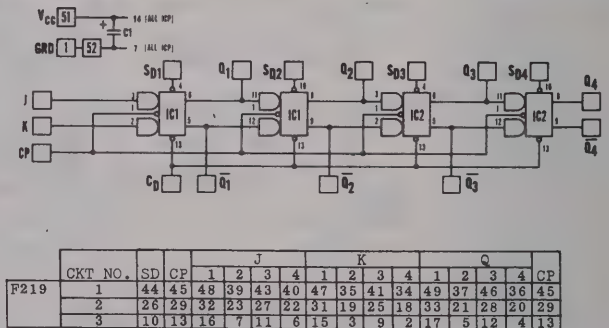
F217



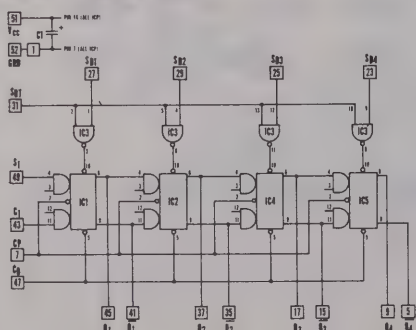
F218



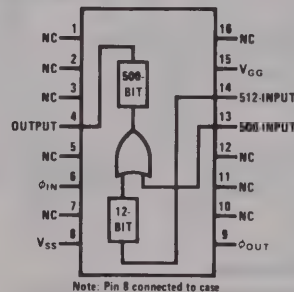
F219



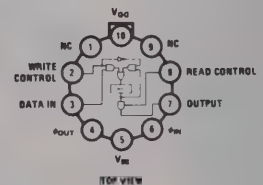
F220



F223



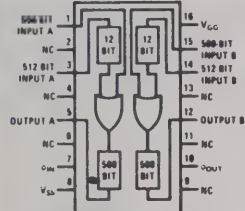
F224



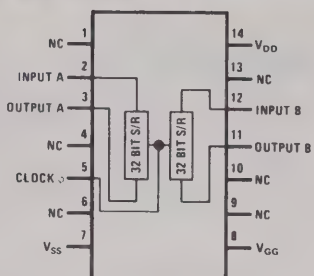
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

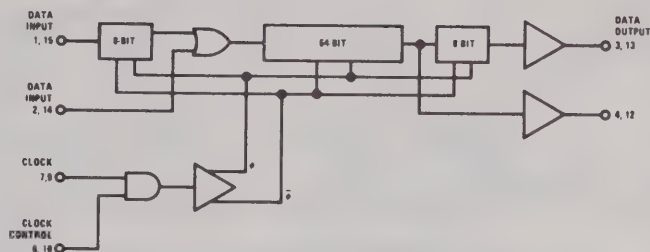
F225



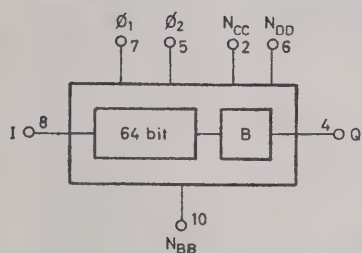
F226



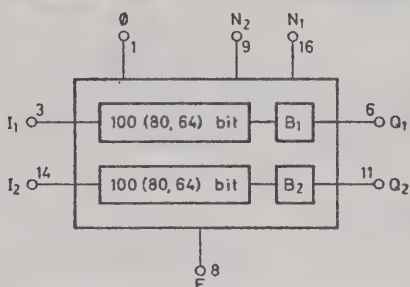
F227



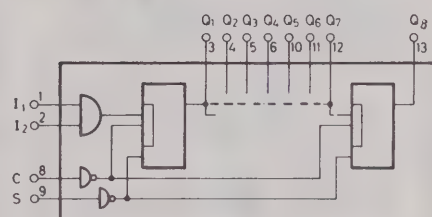
F228



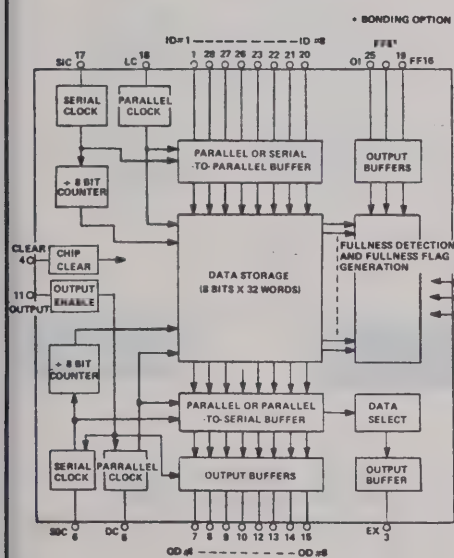
F229



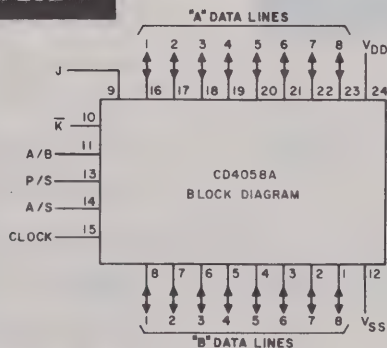
F230



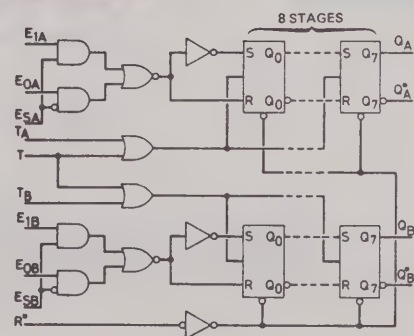
F231



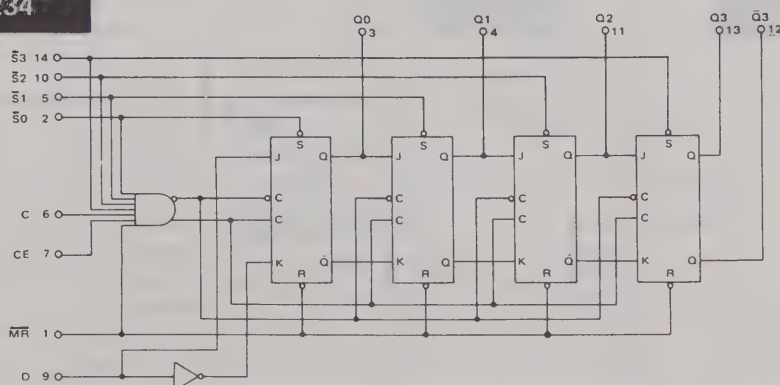
F232



F233



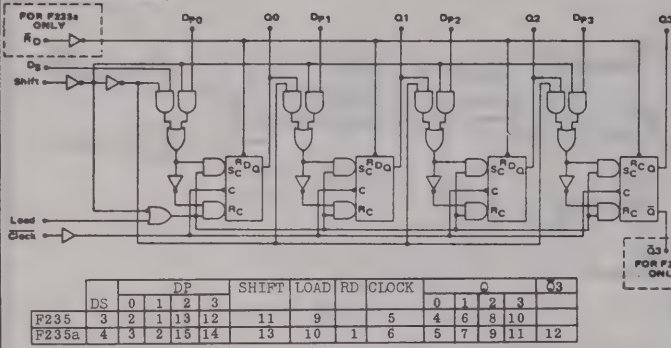
F234



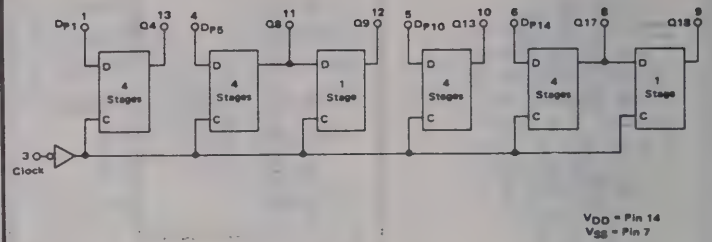
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

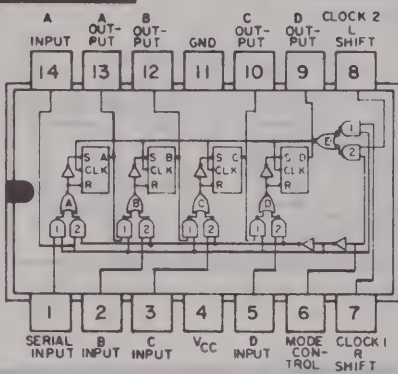
F235



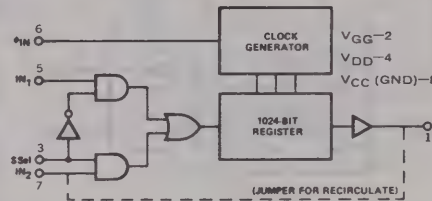
F236



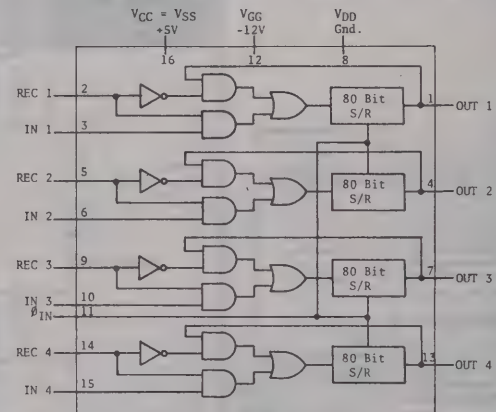
F237



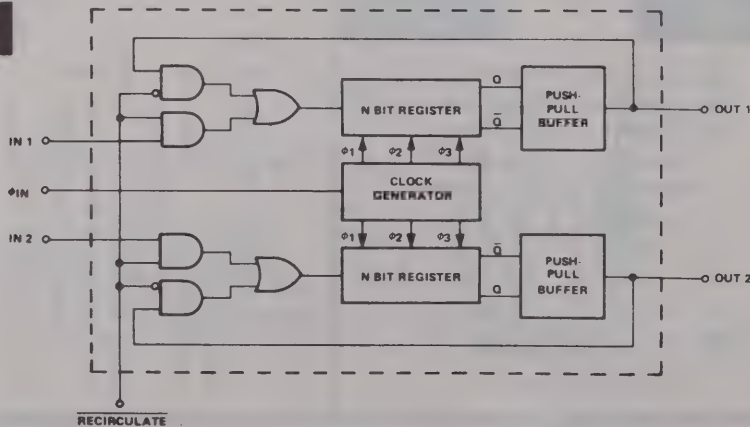
F238



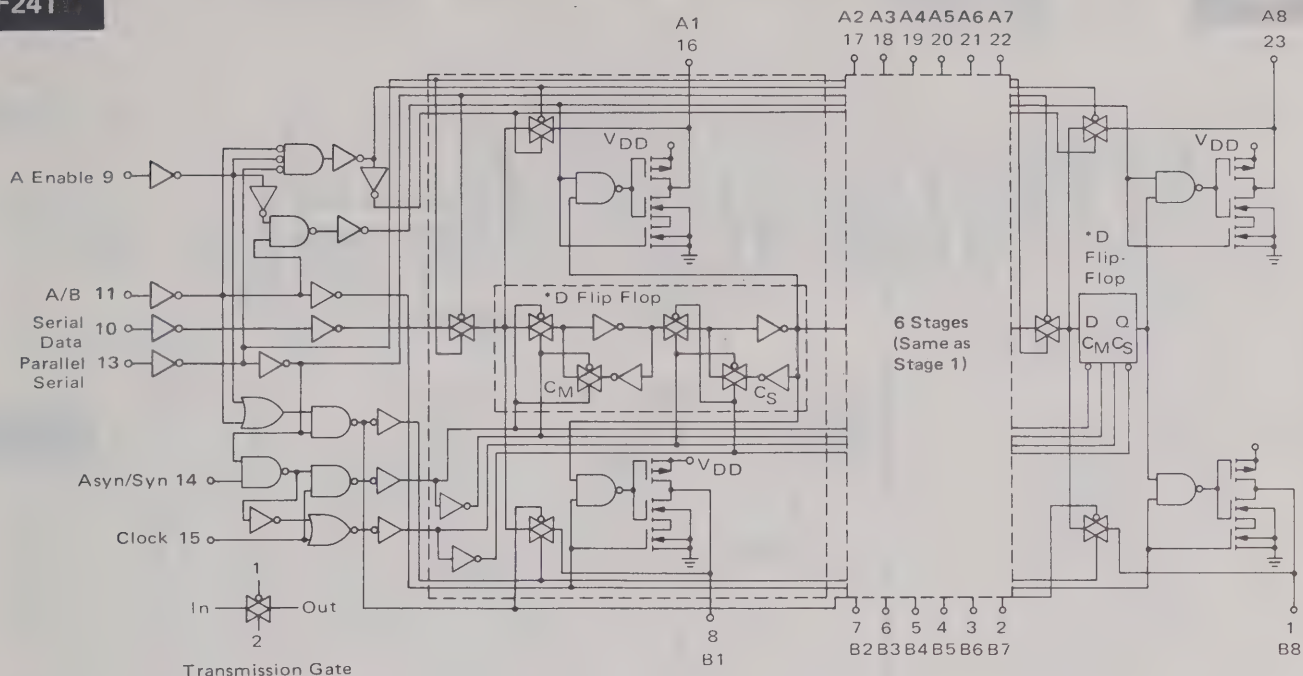
F239



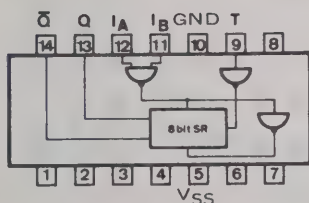
F240



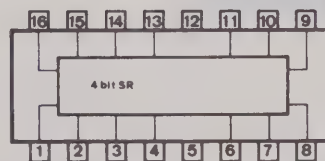
F241



F242

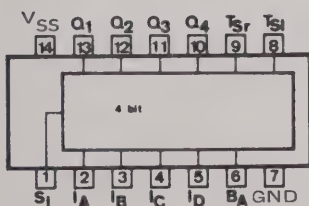


F243

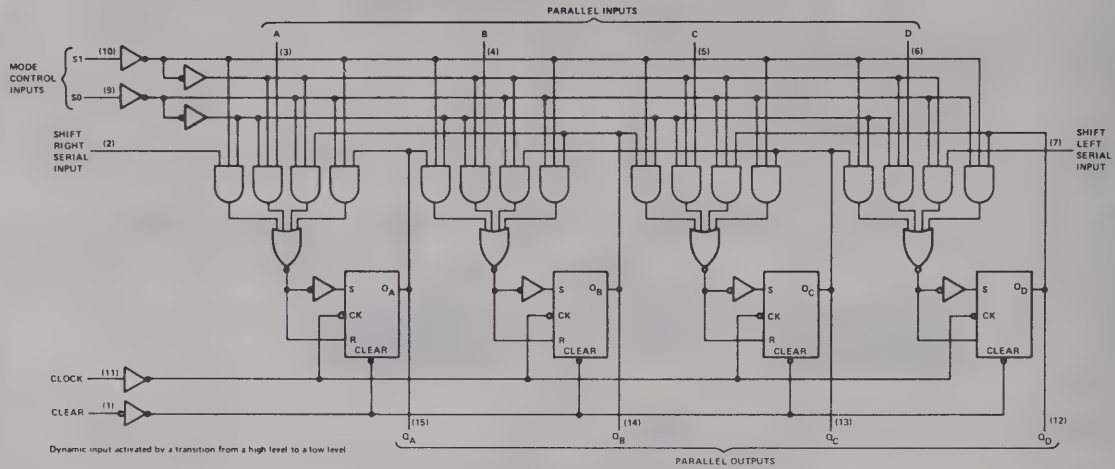


		PIN NUMBERS															
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
F243		IA1	IB1	IC1	ID1	VSS	S1	SI	T	Q	R	ID2	Gnd	IC2	IB2	S2	IA2
F243a		T	IA	IB	IC	VSS	ID	IE	S	SI	QE	QD	Gnd	QC	QB	QA	R

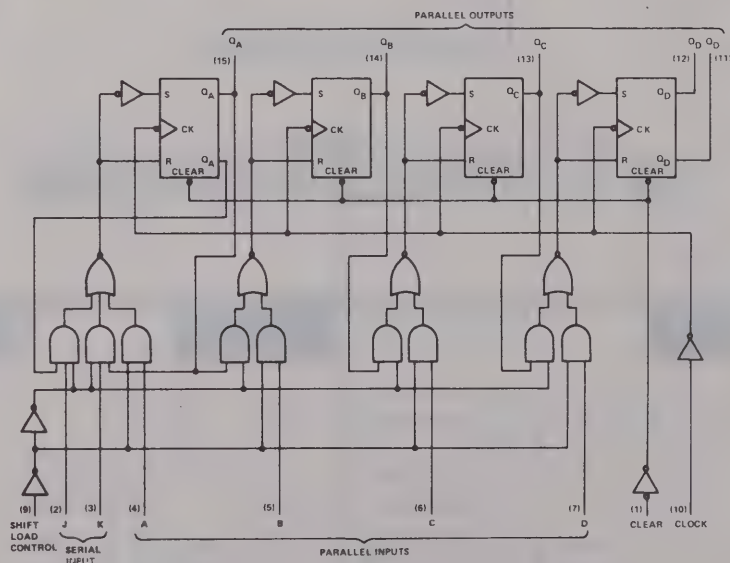
F244



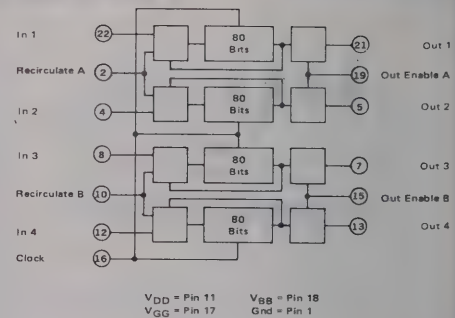
F245



F246

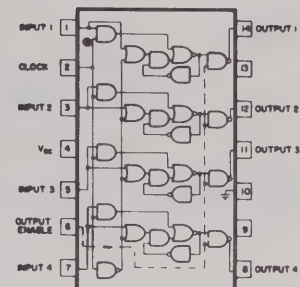
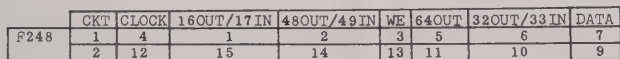


F247



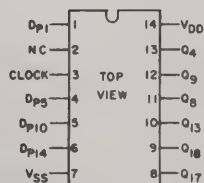
IN DRAWING NUMBER
SEQUENCE

F250

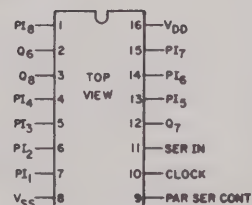
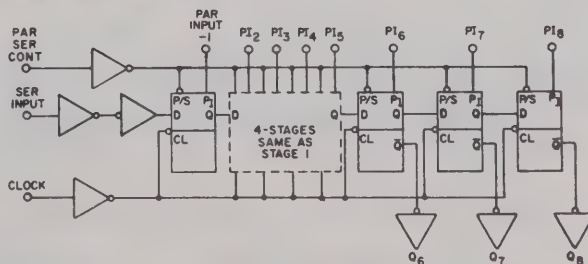


F250—TWO 5K PULLUP RESISTORS ARE PROVIDED IN THE PACKAGE AND ARE INTERNALLY CONNECTED TO V_{CC} AND BROUGHT OUT ON PINS 9 AND 13.

F250a—OUTPUT ENABLE
AND ALL CONNEC-
TIONS EXCLUDED.
(DOTTED LINE
PORTION.)



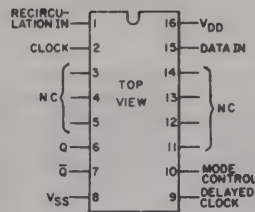
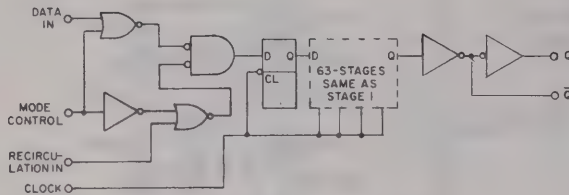
F252



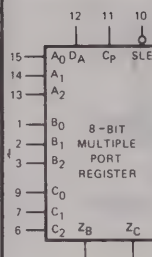
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

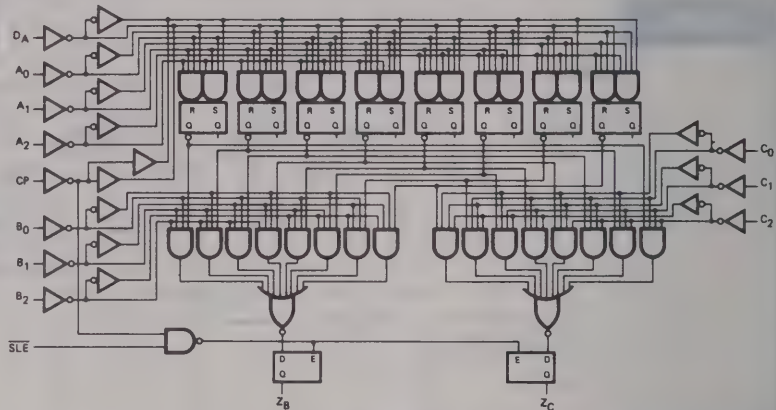
F253



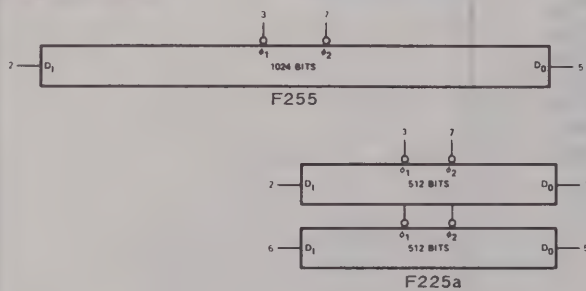
F254



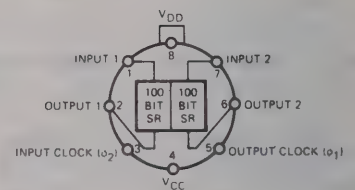
V_{CC} = PIN 16
GND = PIN 8



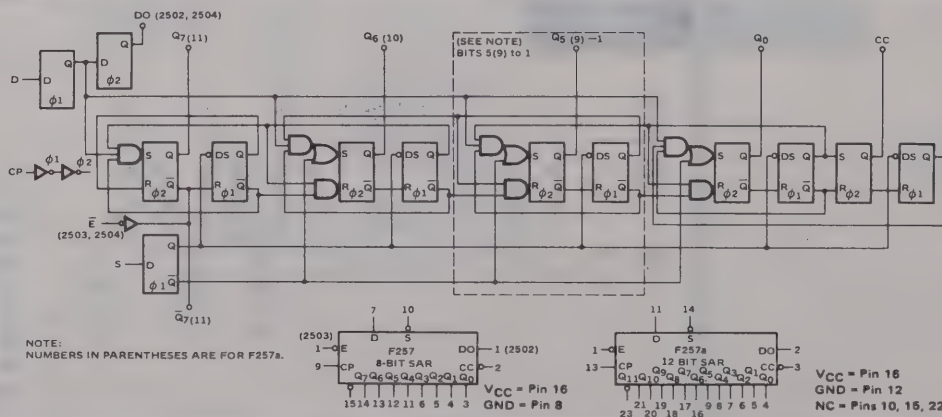
F255



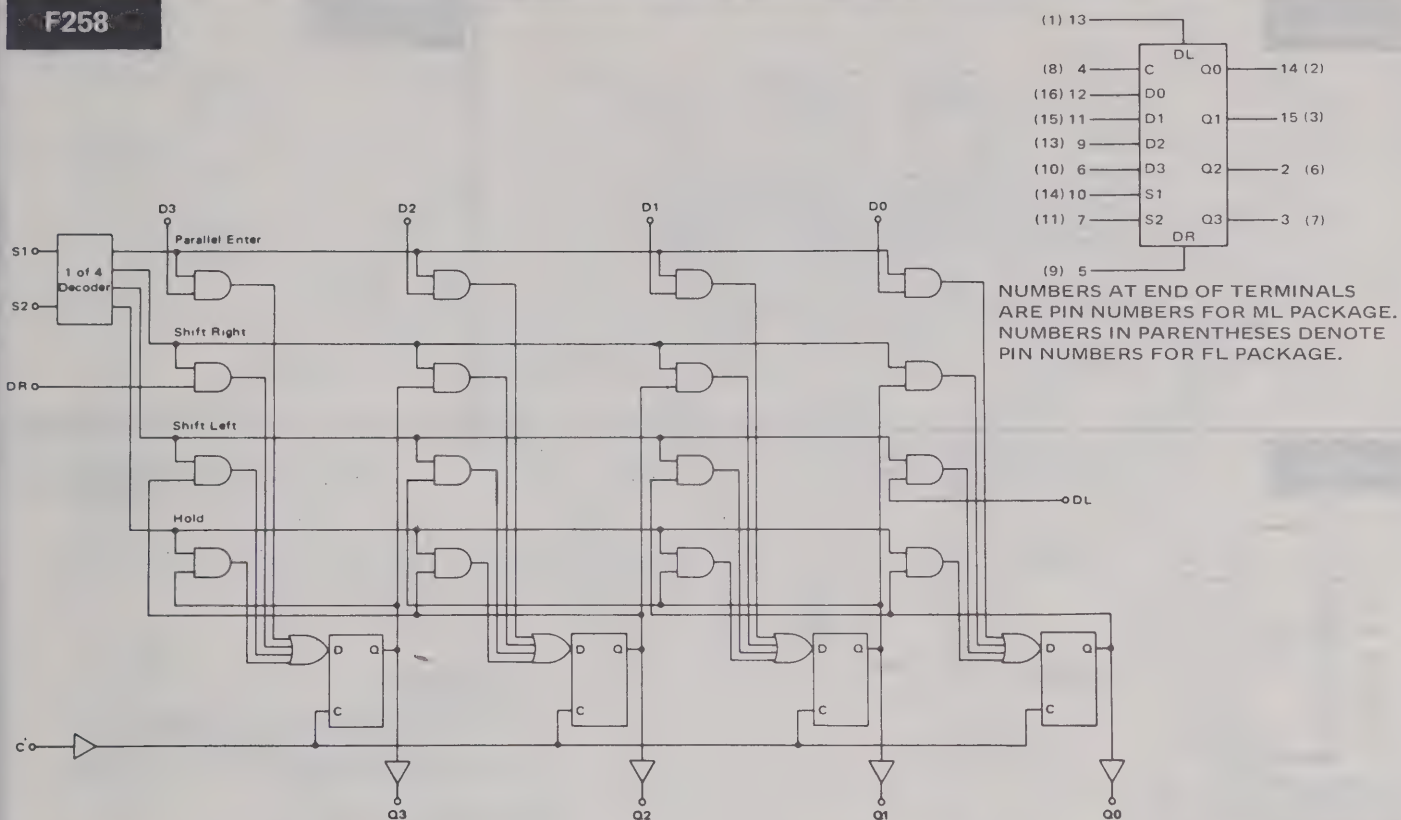
F256



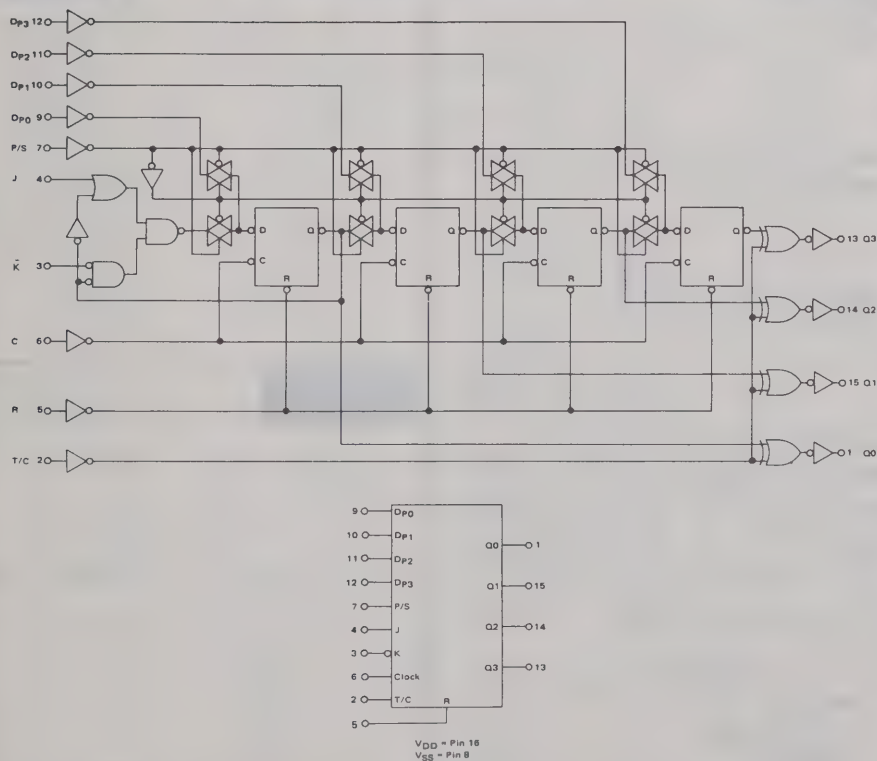
F257



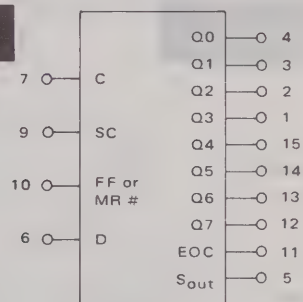
F258



F259



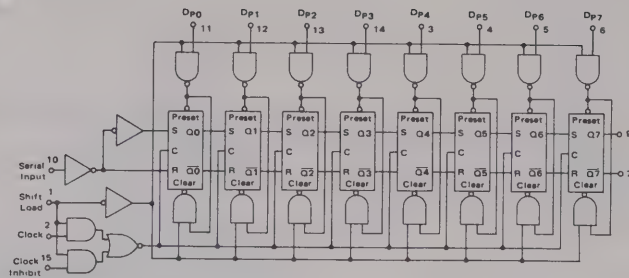
F260



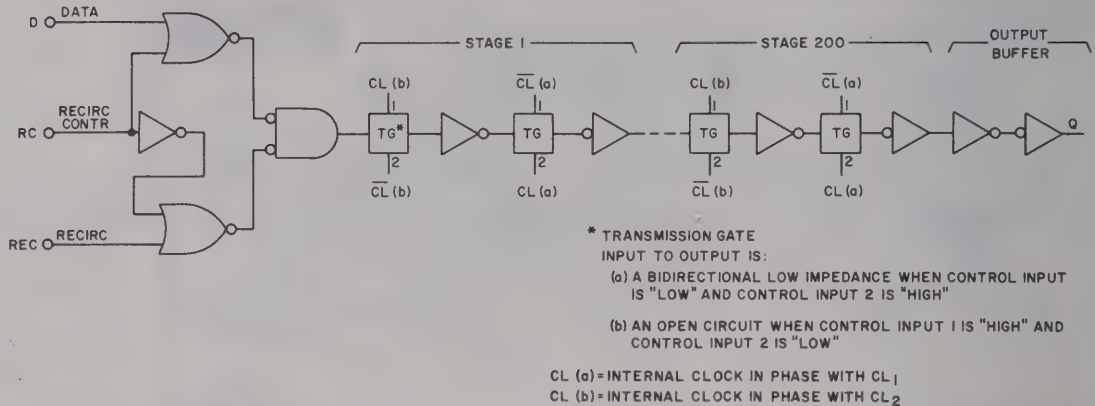
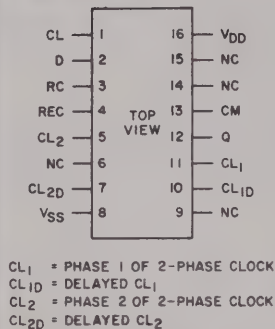
VDD = Pin 16
VSS = Pin 8

#FOR F260 PIN 10 IS MR INPUT.
FOR F260a PIN 10 IS FF INPUT.

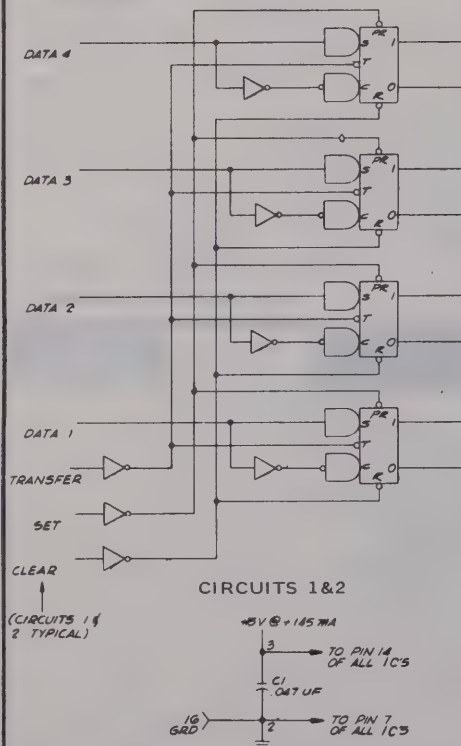
F261



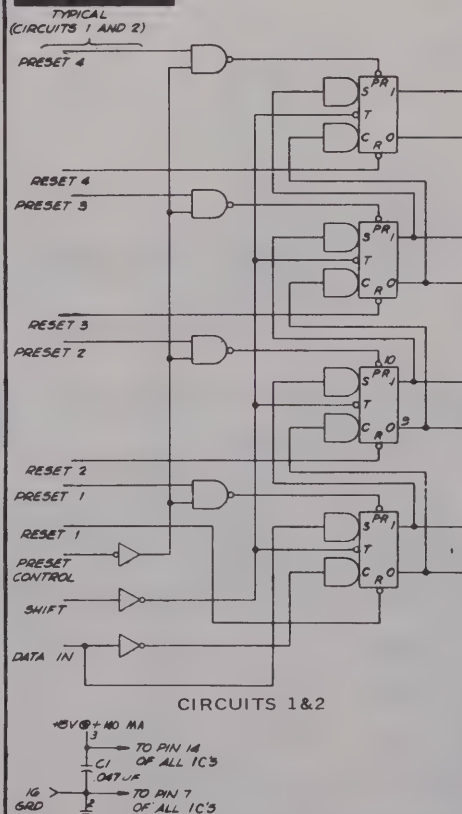
F262



F263



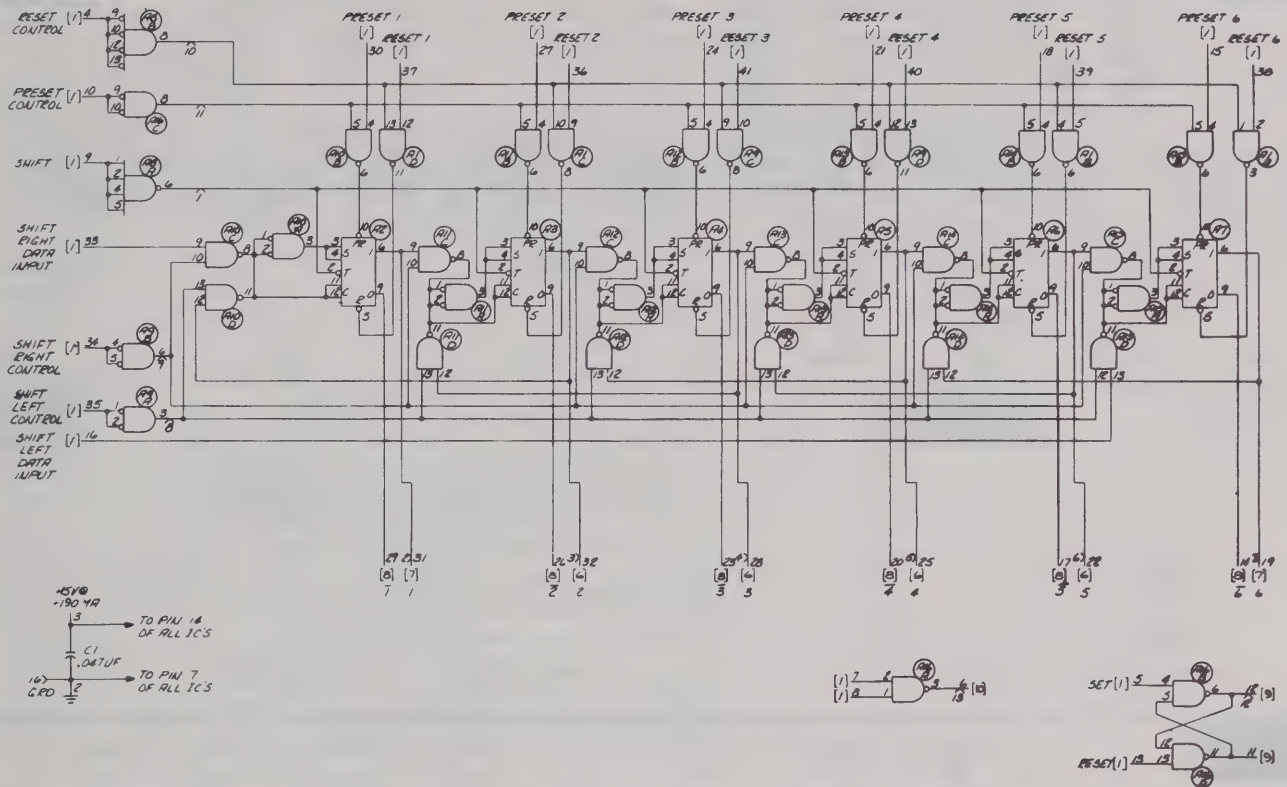
F264



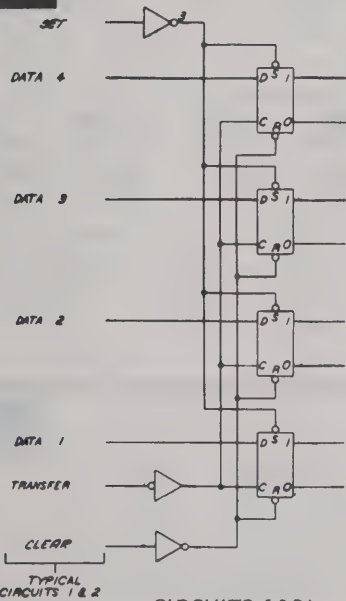
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

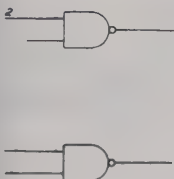
F265



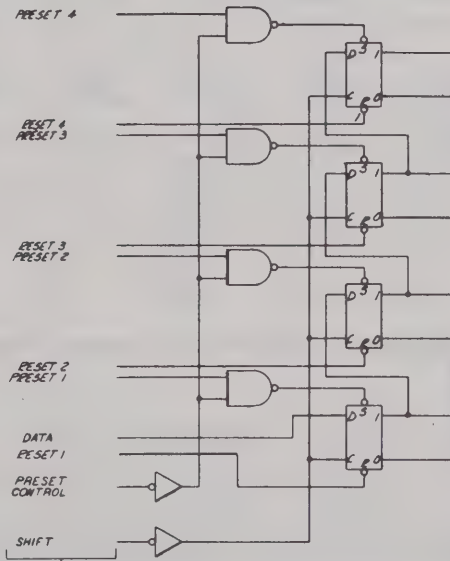
F266



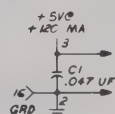
CIRCUITS 1 & 2



F267



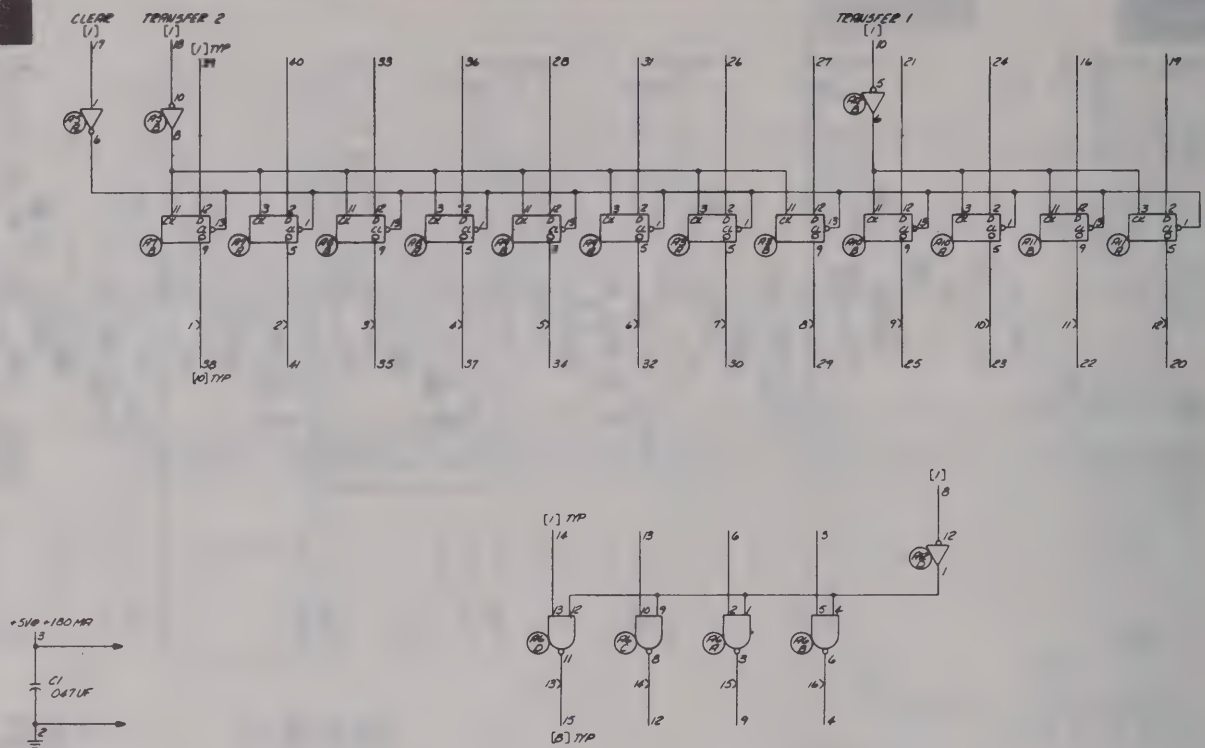
CIRCUITS 1 & 2



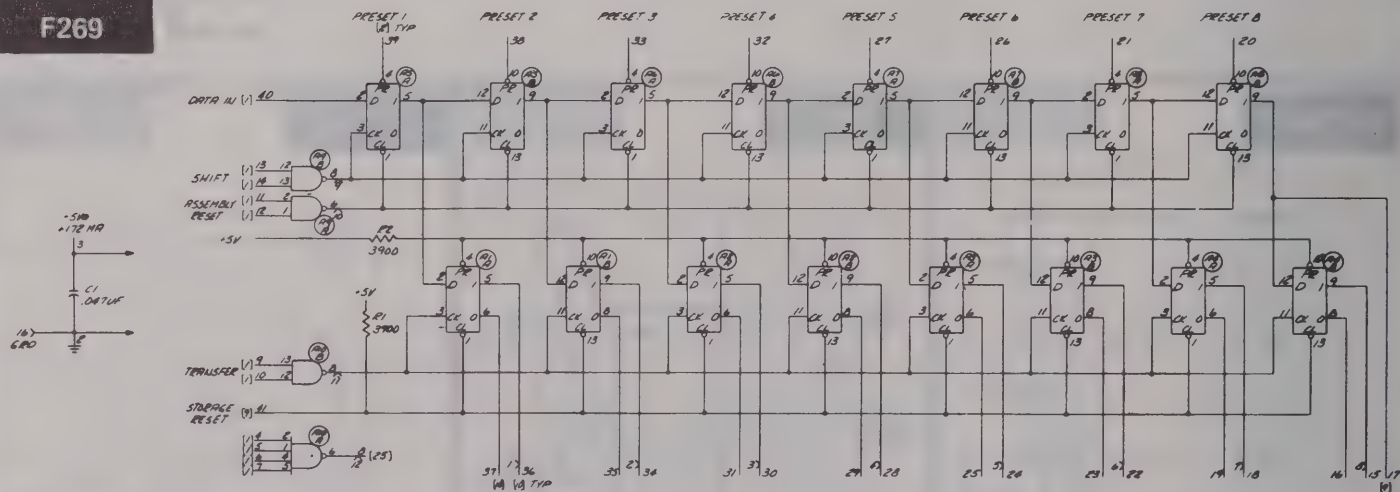
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

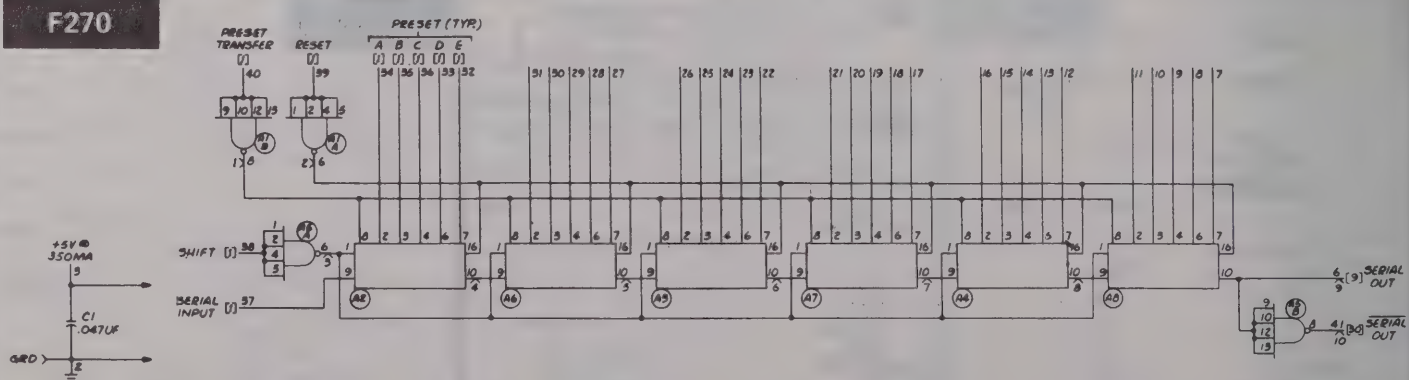
F268



F269



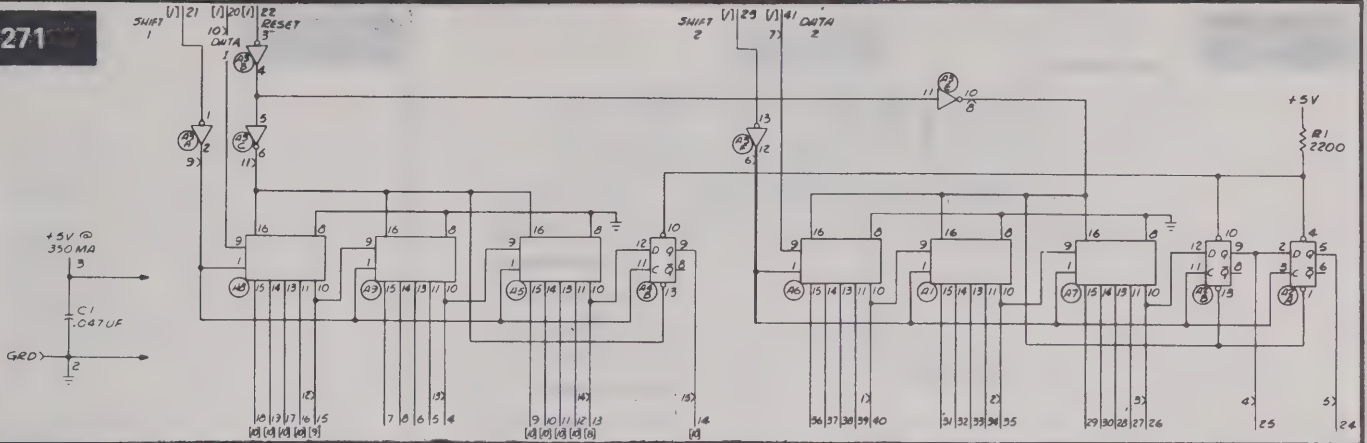
F270



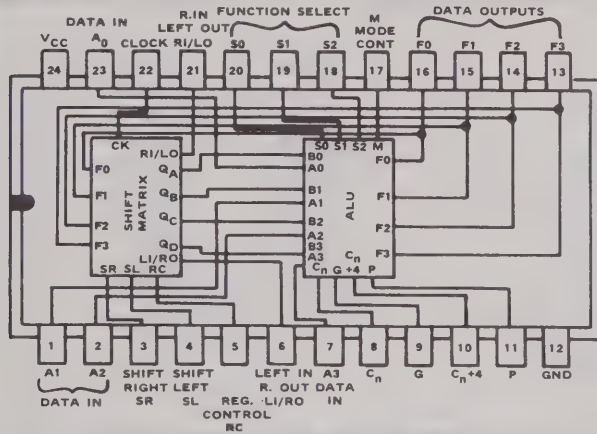
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

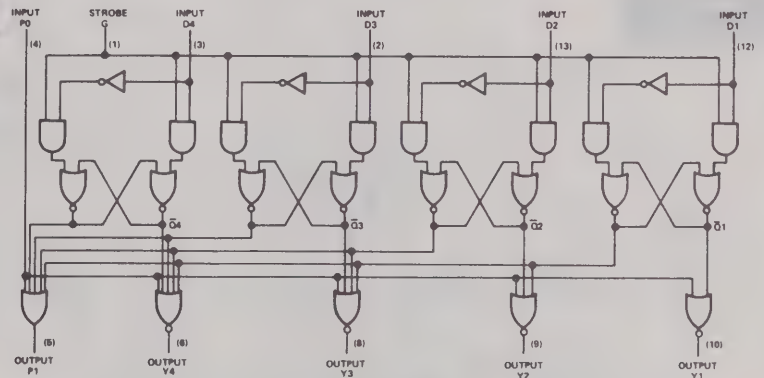
F271



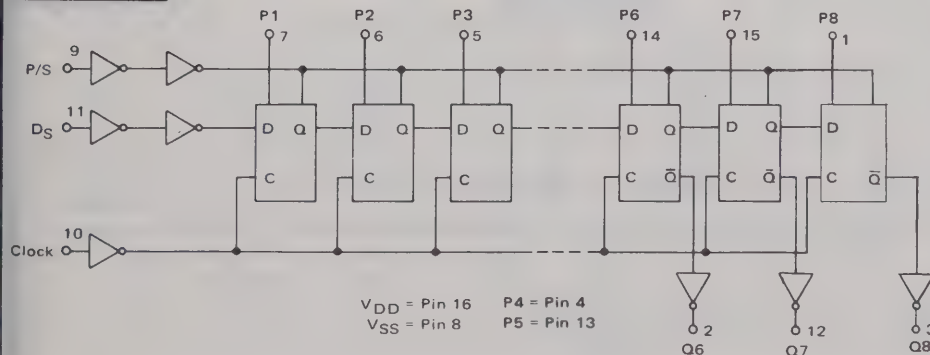
F272



F273



F274



V_{DD} = Pin 16
V_{SS} = Pin 8
P4 = Pin 4
P5 = Pin 13

IN DRAWING NUMBER
SEQUENCE

CLOCK 5

DATA IN 12

1 2 3 16 17 32 33 48 49 64

65 80 81 96 97 112 113 128

10Q16

13Q32

9Q48

1Q64

8Q80

2Q96

6Q112

3Q128

$V_{DD} = \text{Pin } 14$

$V_{SS} = \text{Pin } 7$

The diagram shows a 4 x 4 Memory block. It has four data inputs (D0, D1, D2, D3) and four data outputs (Q0A, Q1A, Q2A, Q3A and Q0B, Q1B, Q2B, Q3B). A 2-to-4 decoder is connected to the memory's address inputs (W0, W1, R0A, R1A, R0B, R1B). The decoder's outputs are connected to the memory's word select inputs. The memory's outputs are connected to two 3-state buffers, 3-State A and 3-State B, which provide Word A Output and Word B Output respectively. A Clock signal is connected to the decoder, and a WE (Write Enable) signal is connected to the memory.

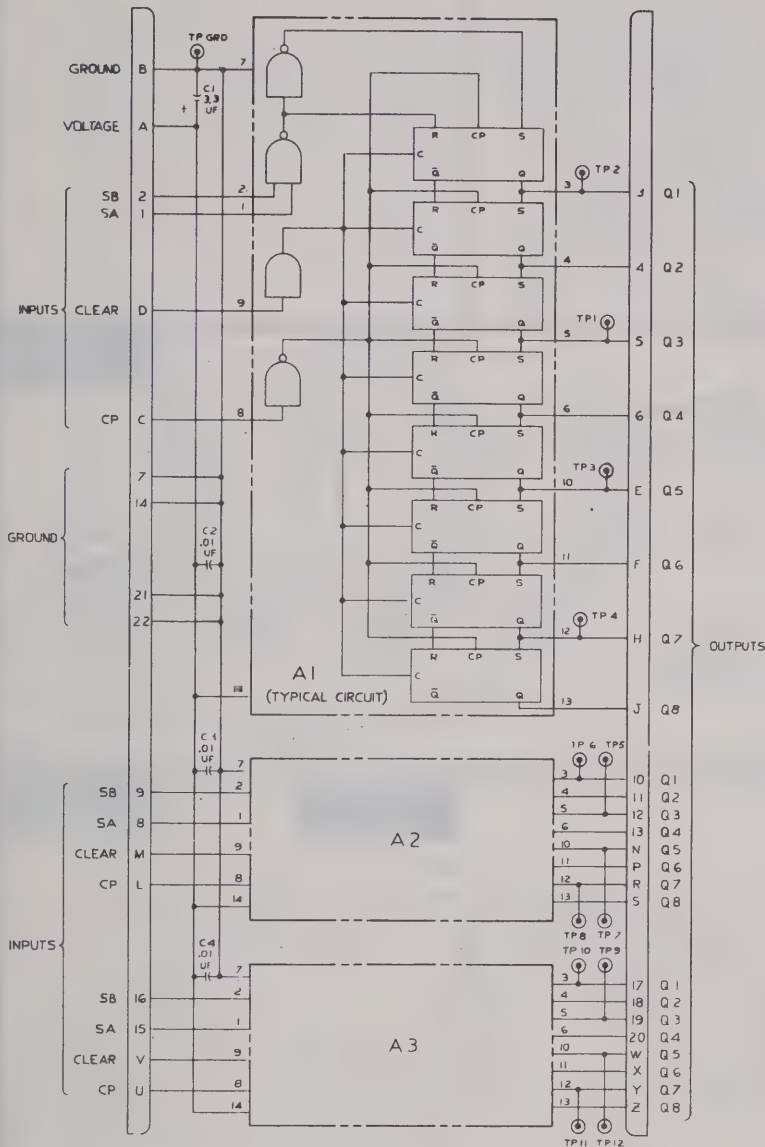
1	$Q3_B$	V_{DD}	24
2	$Q2_B$	$Q1_B$	23
3	3-State A	$Q0_B$	22
4	$Q0_A$	3-State B	21
5	$Q1_A$	$D0$	20
6	$Q2_A$	$D1$	19
7	$Q3_A$	$D2$	18
8	Write 0	$D3$	17
9	Write 1	C	16
10	Read 1 _B	WE	15
11	Read 0 _B	Read 1 _A	14
12	V_{SS}	Read 0 _A	13

V_{DD} = Pin 24
 V_{SS} = Pin 12

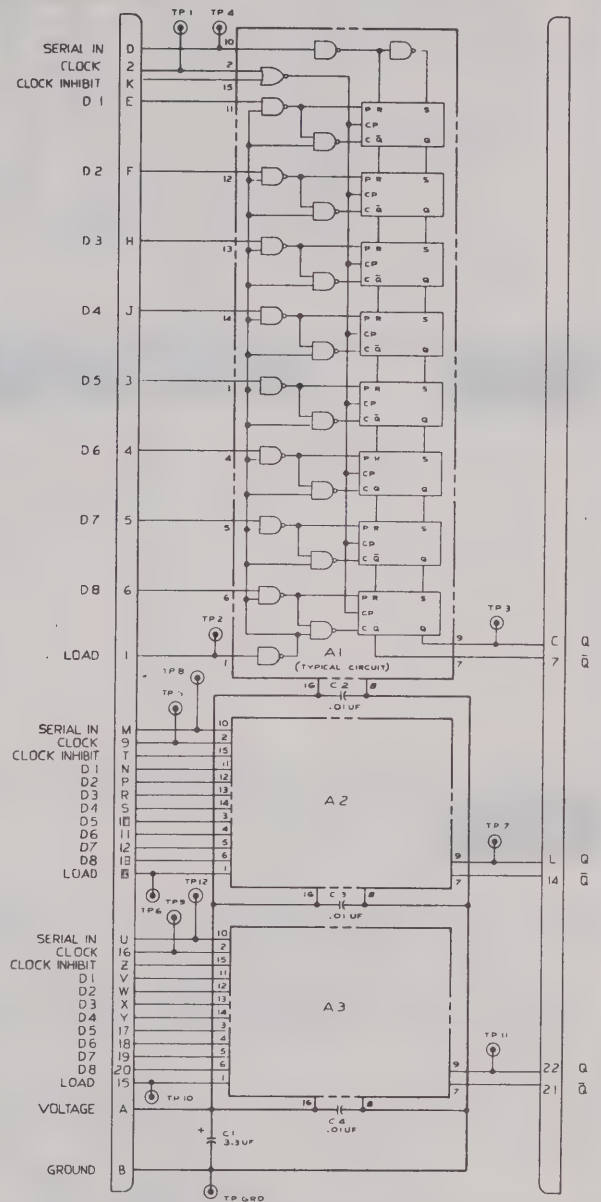
NOTES:

- 1- IC CHIPS AT THEPAD ARE ANALOGICS
M 8280A (DECADE COUNTER/STORAGE REGISTER).
- 2- I.C. CHIP AS IS D.T.C. NO. B1492-D10 (DUAL 4 POWER NAND)

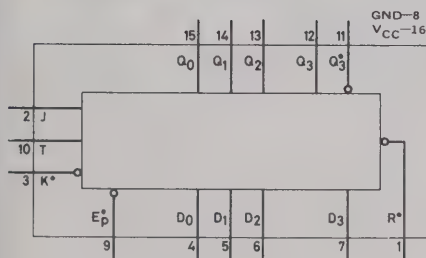
F278



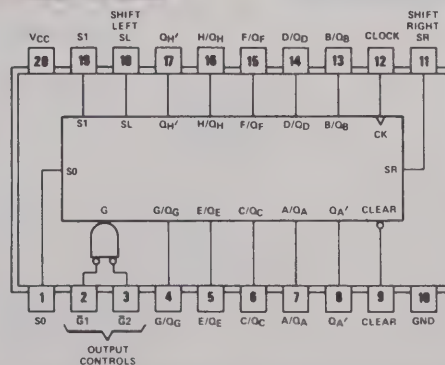
F279



F280



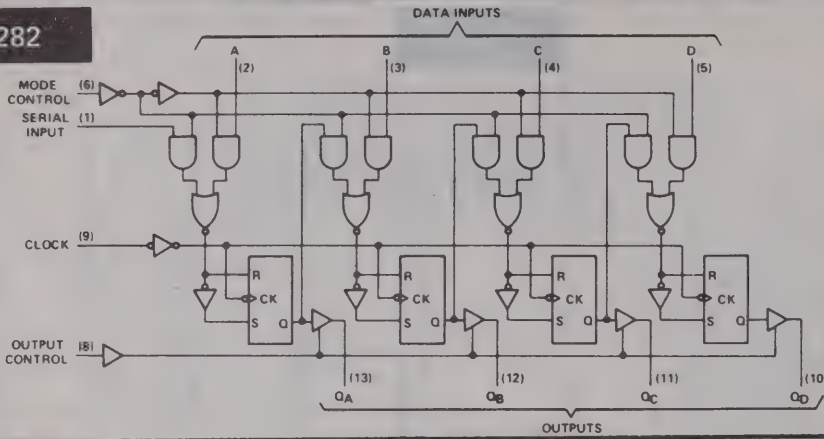
F281



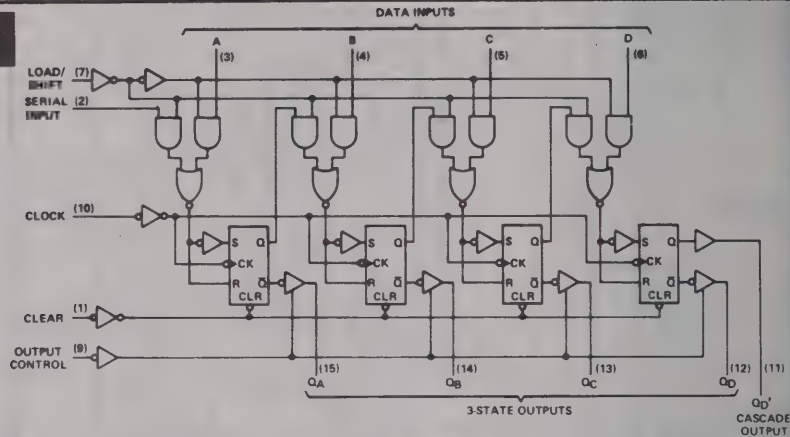
SECTION 9 LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

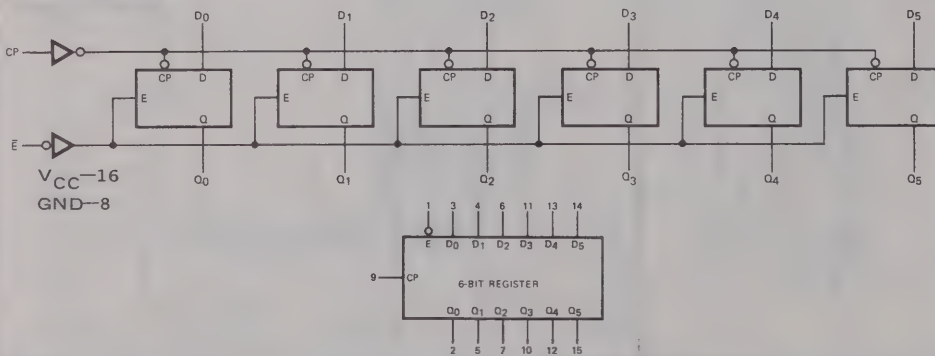
F282



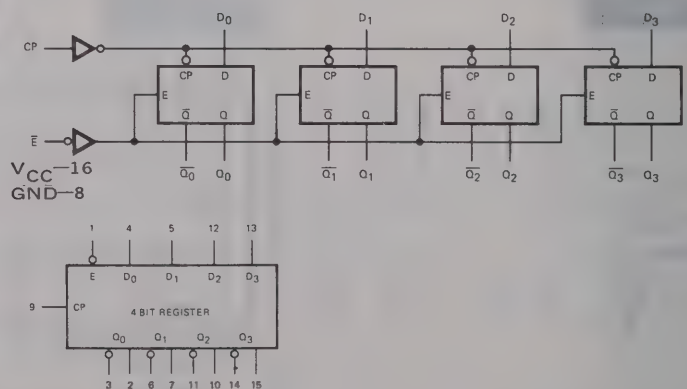
F283



F284



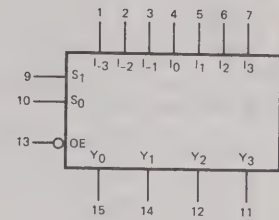
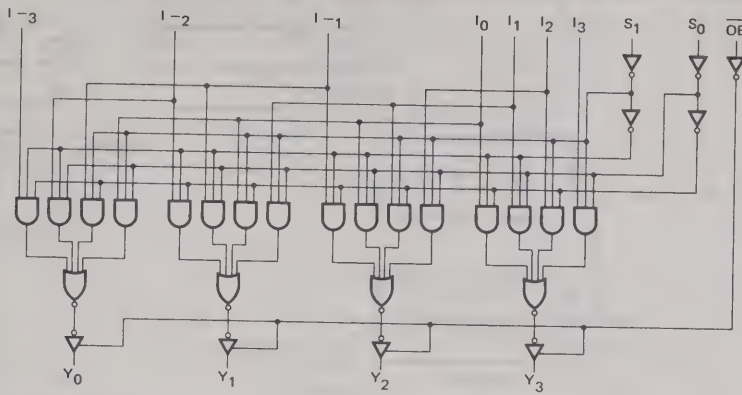
F285



SECTION 9. LOGIC/BLOCK DRAWINGS

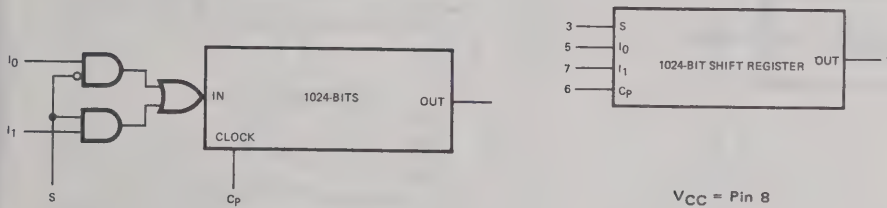
IN DRAWING NUMBER
SEQUENCE

F286



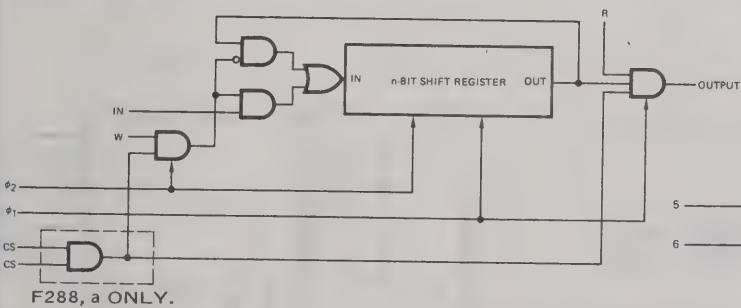
VCC = Pin 16
GND = Pin 8

F287

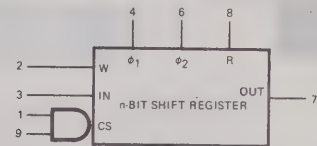


VCC = Pin 8
VGG = Pin 2
VDD = Pin 4

F288



F288, a ONLY.



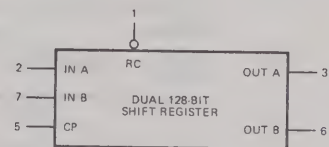
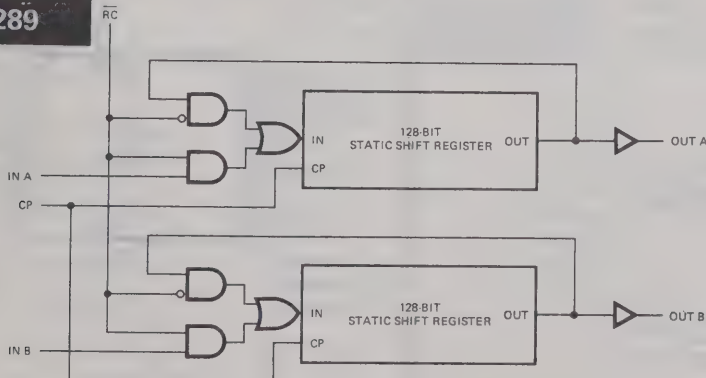
F288 — n=512
F288a — n=1024

VCC = Pin 5
VDD = Pin 10

F288b — n=512
F288c — n=1024

VCC = Pin 8
VDD = Pin 4

F289

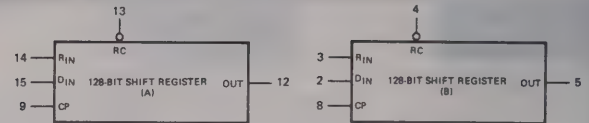
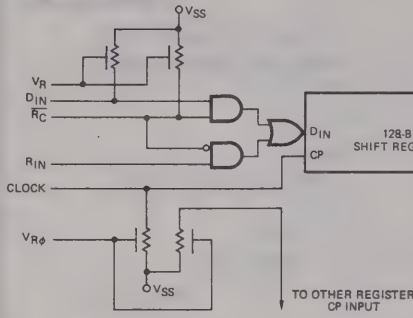


VCC = Pin 8
VGG = Pin 4

SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

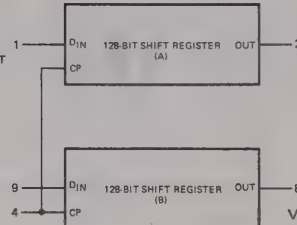
F290



V_{RA} = Pin 16
 V_{RB} = Pin 1
 $V_{R\phi}$ = Pin 10

F290a

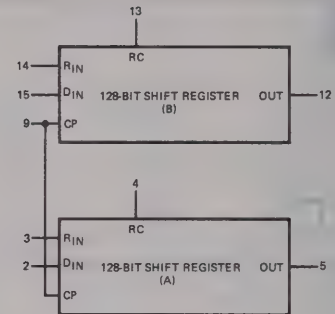
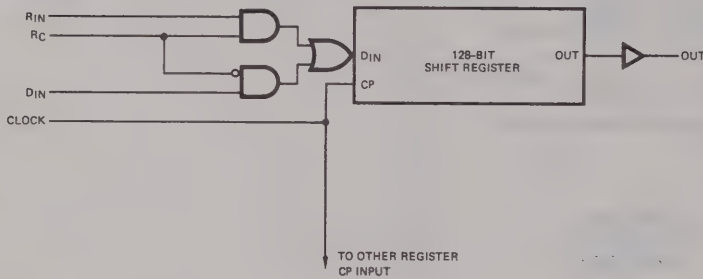
V_{SS} = Pin 7
 V_{DD} = Pin 6
 V_{GG} = Pin 11



F290

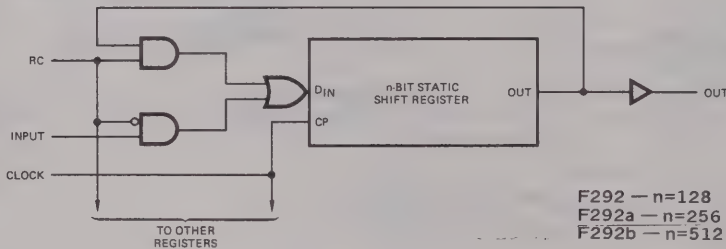
V_{SS} = Pins 5 and 6
 V_{DD} = Pin 3
 V_{GG} = Pin 7

F291

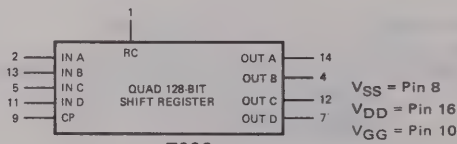


V_{SS} = Pin 7
 V_{DD} = Pin 6
 V_{GG} = Pin 11

F292

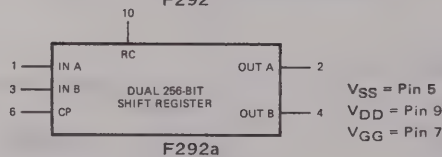


F292 — n=128
F292a — n=256
F292b — n=512



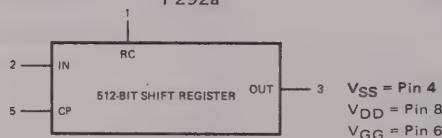
F292

V_{SS} = Pin 8
 V_{DD} = Pin 16
 V_{GG} = Pin 10



F292a

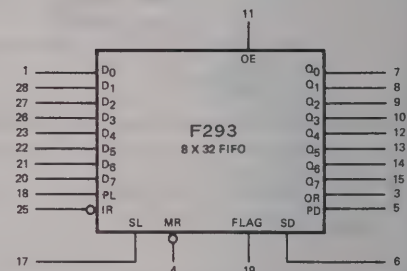
V_{SS} = Pin 5
 V_{DD} = Pin 9
 V_{GG} = Pin 7



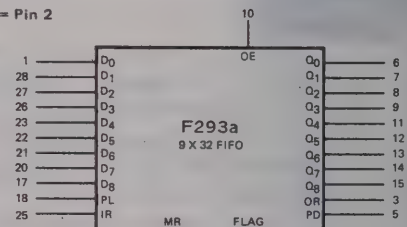
F292b

V_{SS} = Pin 4
 V_{DD} = Pin 8
 V_{GG} = Pin 6

F293



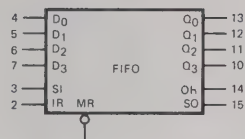
V_{SS} = Pin 24
 V_{DD} = Pin 16
 V_{GG} = Pin 2



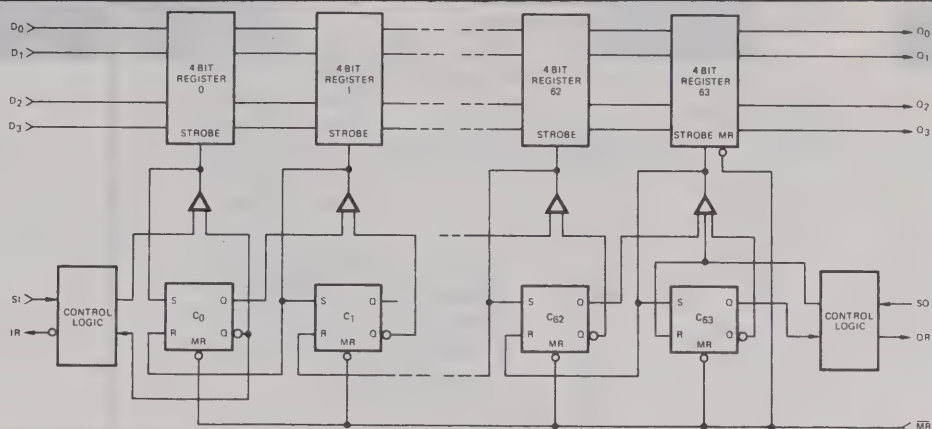
V_{SS} = Pin 24
 V_{DD} = Pin 16
 V_{GG} = Pin 2

SECTION 9. LOGIC/BLOCK DRAWINGS IN DRAWING NUMBER SEQUENCE

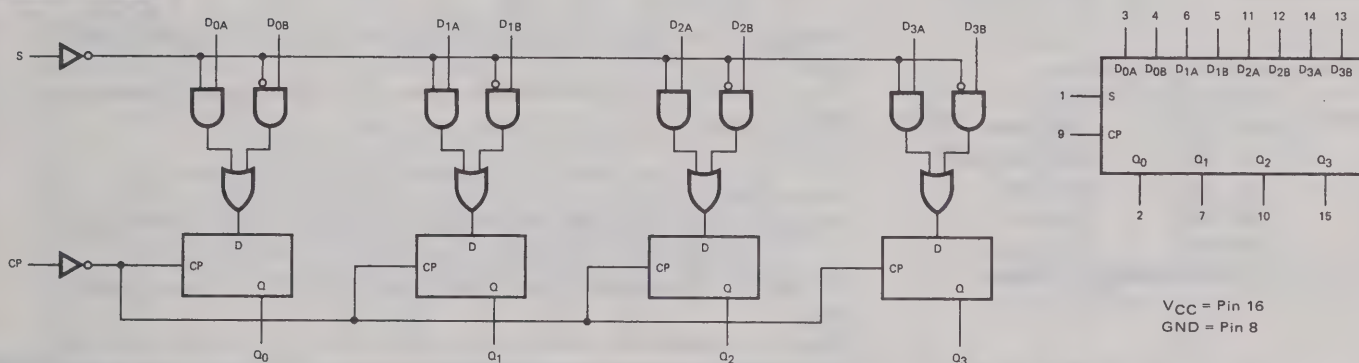
F294



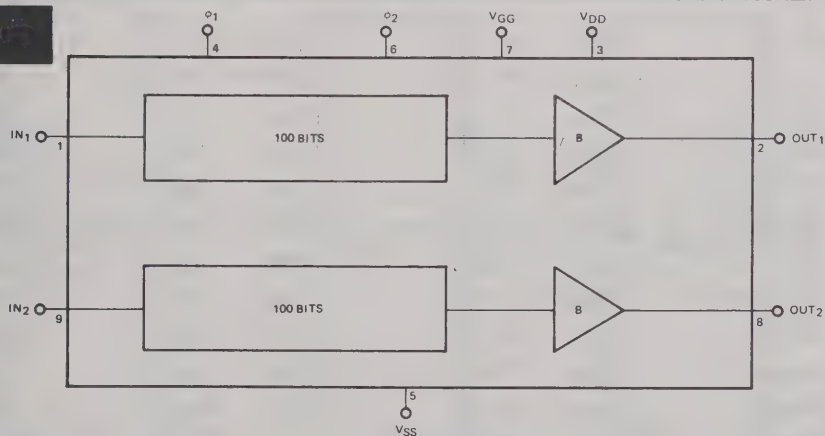
V_{SS} = Pin 16
V_{GG} = Pin 1
V_{DD} = GND = Pin 8



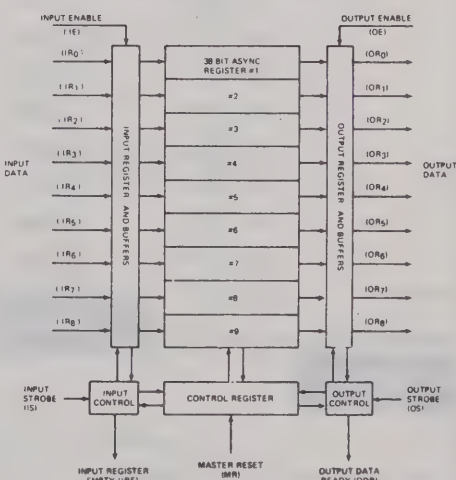
F295



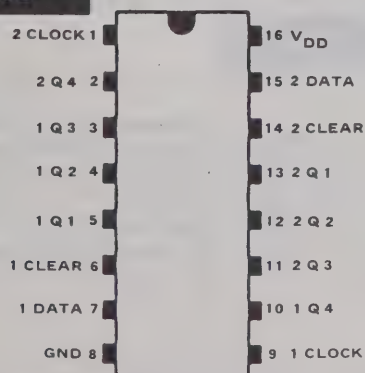
F296



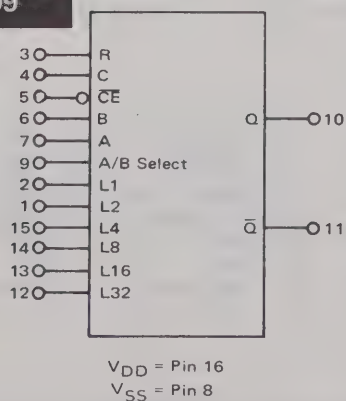
F297



F298



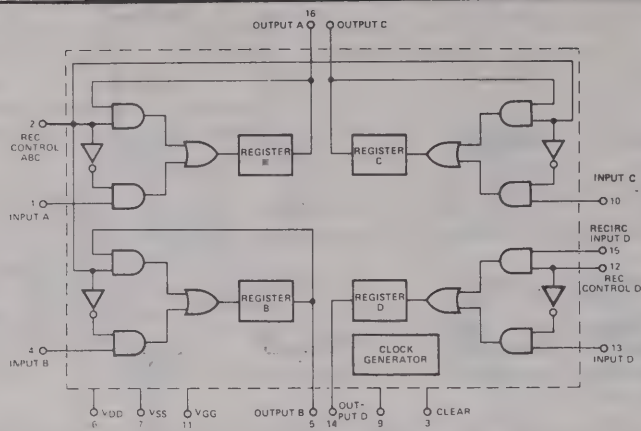
F299



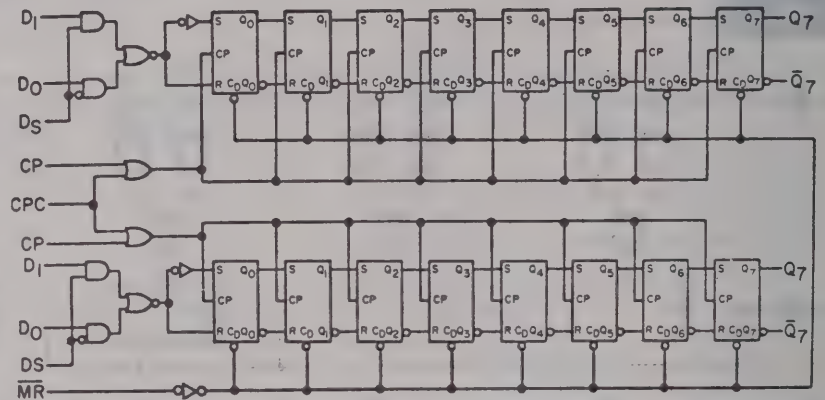
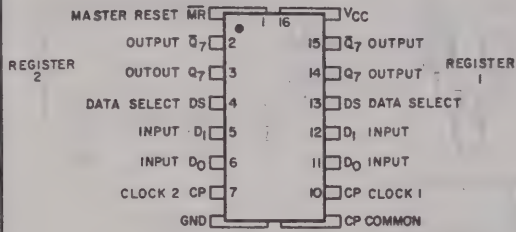
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

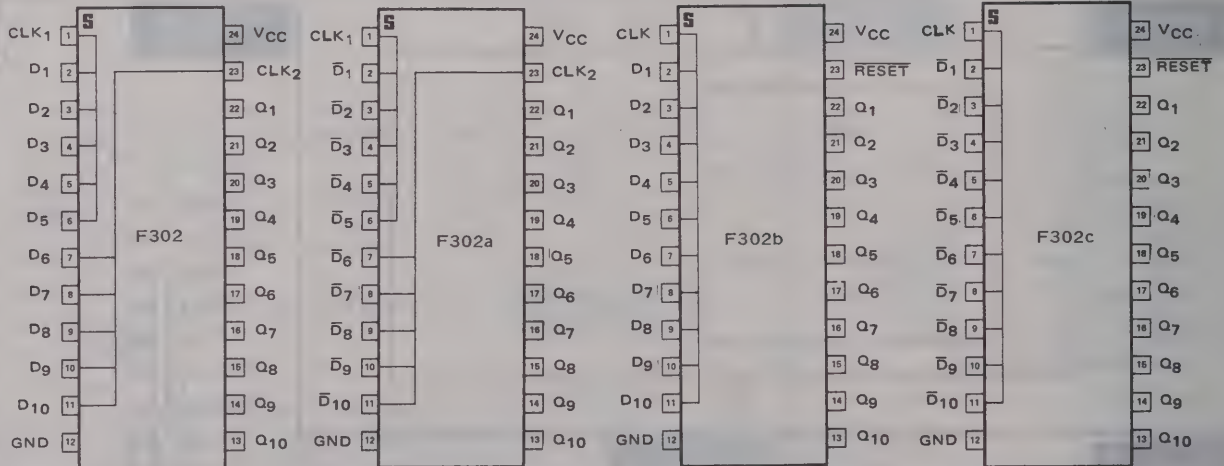
F300



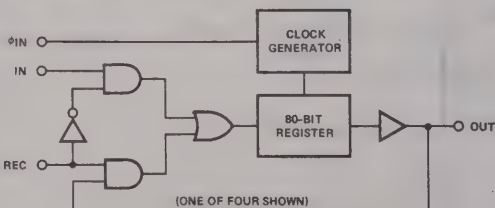
F301



F302

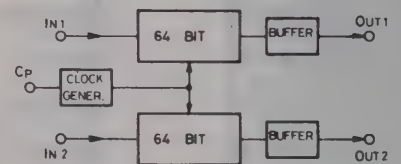


F303

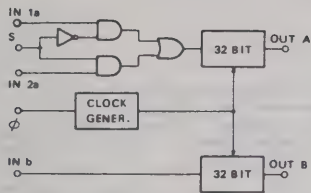


- OUT 1
- Recirculate 1
- IN 1
- OUT 2
- Recirculate 2
- IN 2
- OUT 3
- V_{DD} (Ground)
- VCC
- IN 4
- Recirculate 4
- OUT 4
- VGG
- φ IN
- IN 3
- Recirculate 3

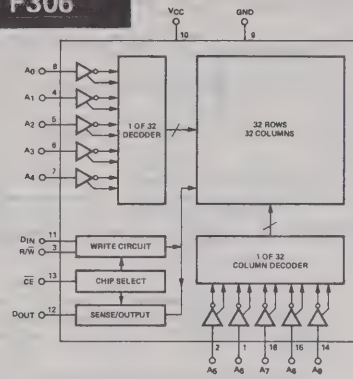
F304



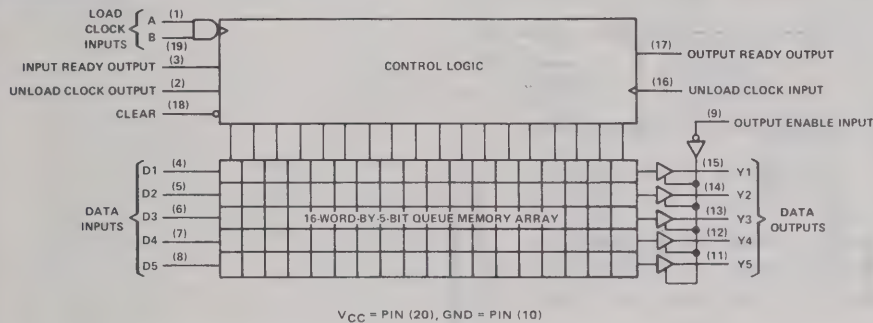
F305



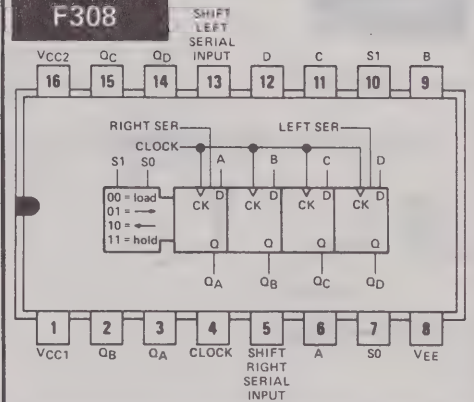
F306



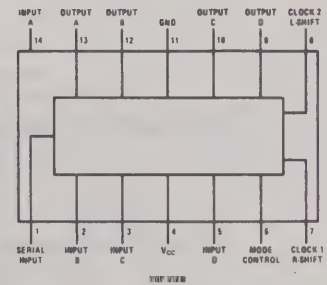
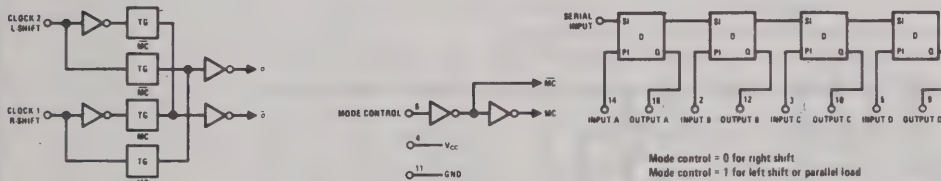
F307



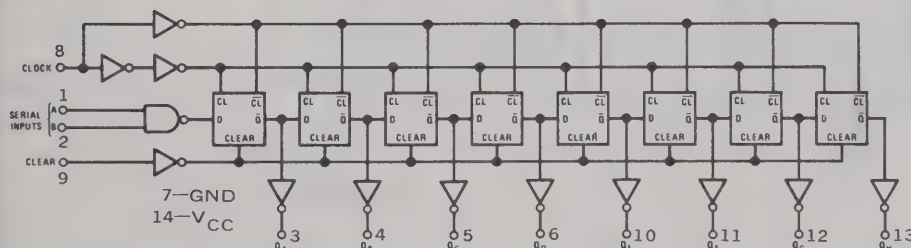
F308



F309



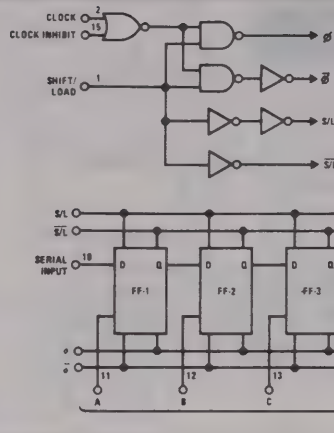
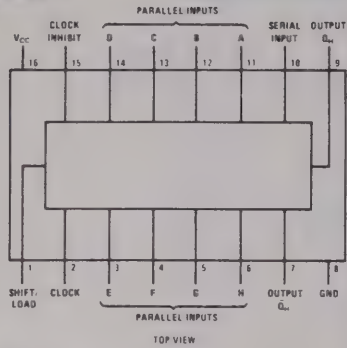
F310



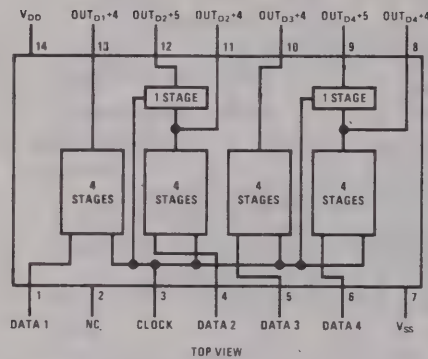
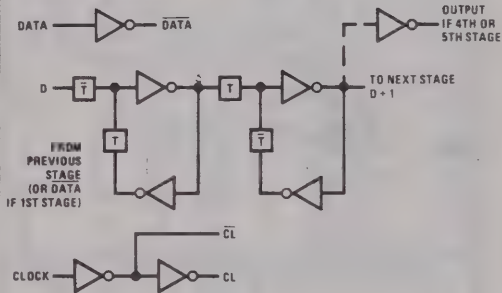
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

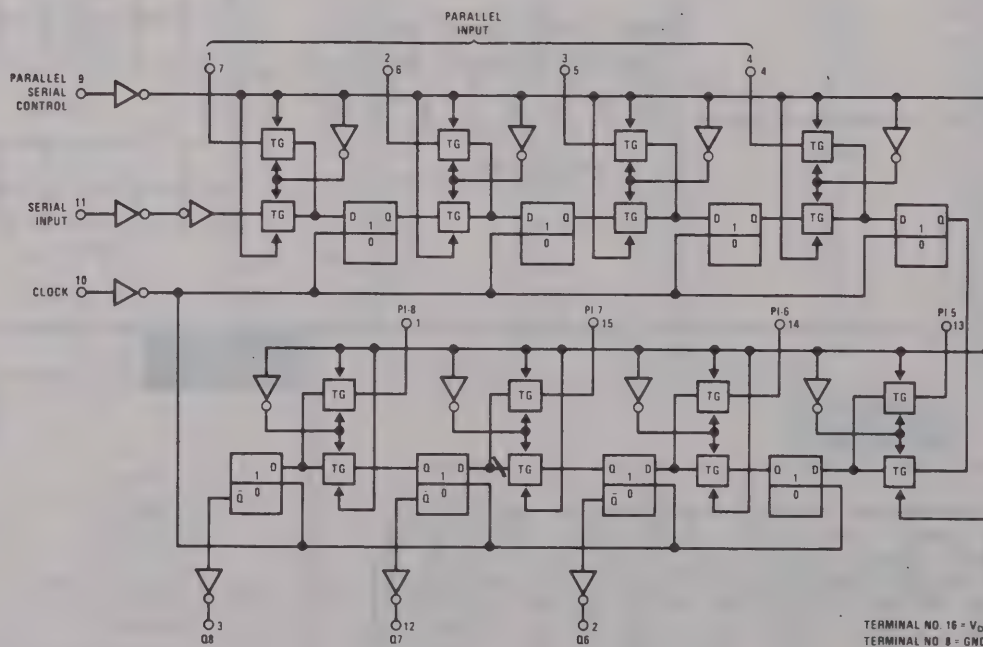
F311



F312

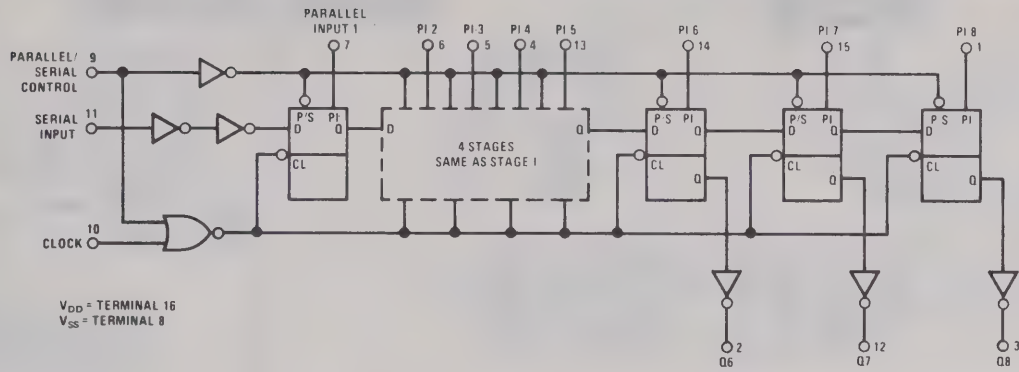


F313

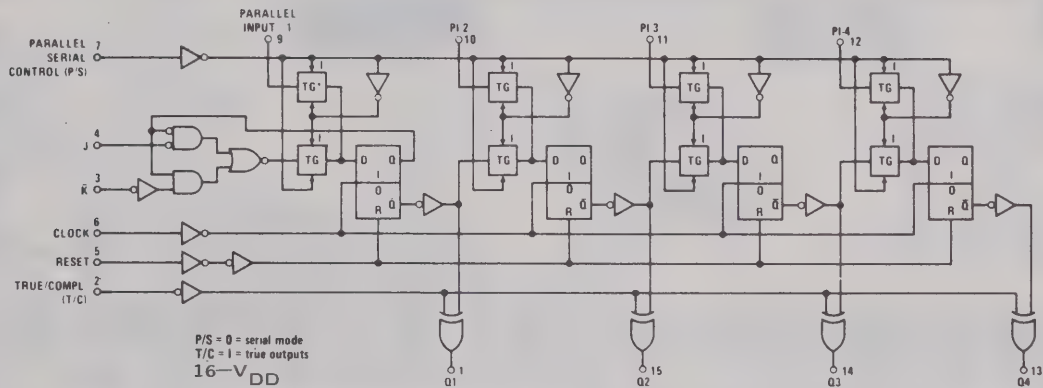


TERMINAL NO. 16 = V_{CC}
TERMINAL NO. 8 = GND

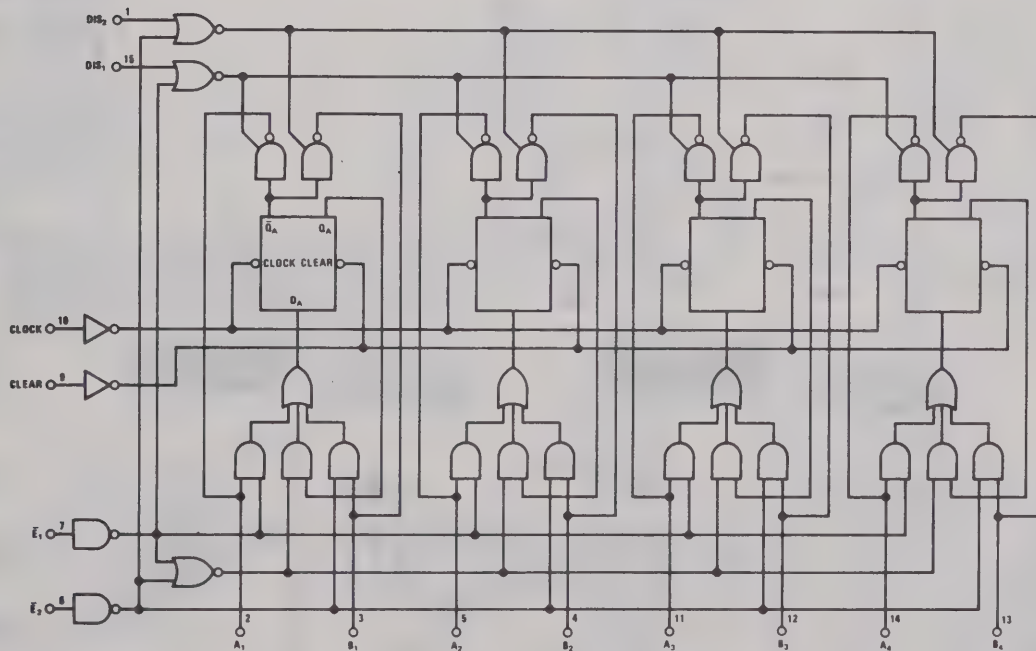
F314



F315



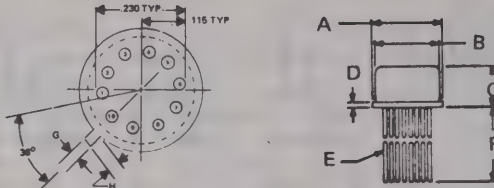
F316



SECTION 10. OUTLINE DRAWINGS

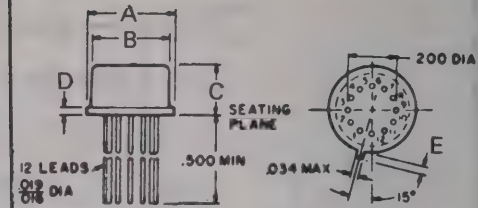
IN DRAWING NUMBER
SEQUENCE

CY1



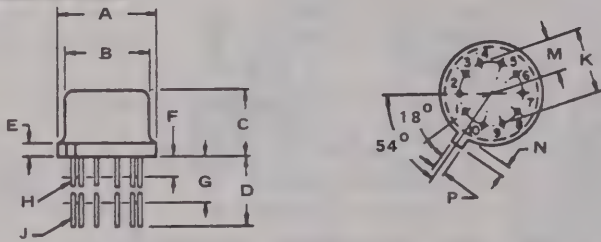
	A	B	C	D	E	F	G	H
CY1	.335	.305	.169	.040	.016	.500	.034	.033
	.370	.335	.185	MAX	.019	MIN	MAX	MAX
CY1a	.358	.326	.176	.026	.017	.515	.030	.032
CY1b	.335	.305	.180		.016	.750	.028	.026
	.370	.335	MAX		.019		.034	.034
CY1c	.358	.326	.140		.016	.500		
	.362	MAX	.160		.019	MIN		

CY2



	A	B	C	D	E
CY2	.358	.318	.169	.030	.033
	.362	.330	.181	MAX	MAX
CY2a	.355	.305	.165	.040	.029
	.370	.335	.185	MAX	.045

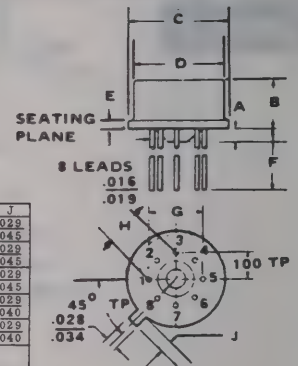
CY3



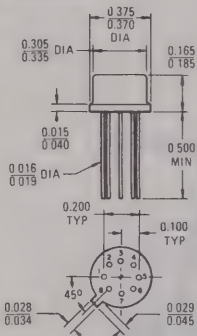
	A	B	C	D	E	F	G	H	J	K	M	N	P
CY3	.335	.305	.160	.500	.040	.050	.250	.016	.160	.200	.100	.029	.028
	.370	.335	.180	MIN	MAX	MAX	MIN	.019	.021			.045	.034
CY3a	.370	.334	.183	.500	MIN			.017		.200		.039	.033
	MAX	MAX										MAX	

CY4

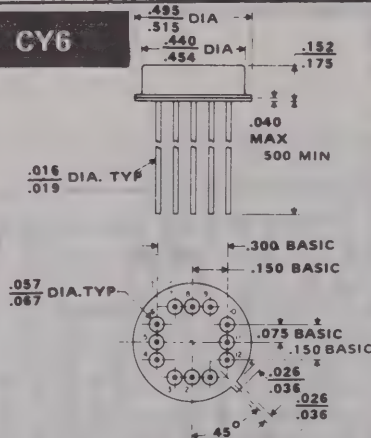
	A	B	C	D	E	F	G	H	J
CY4	.040	.165	.335	.305	.040	.500	.200		.029
	MAX	.185	.370	.335	MAX	MIN	T.P.		.045
CY4a	.050	.165	.335	.305	.040	.500	.200		.029
	MAX	.185	.370	.335	MAX	MIN	T.P.		.045
CY4b	.050	.240	.335	.305	.040	.500	.200		.028
	MAX	.260	.370	.335	MAX	MIN	T.P.		.045
CY4c	.015	.125	.335	.315	.020	.500	.190	.120	.029
	.045	.185	.370	.325	.030	.562	.210	.160	.040
CY4d	.015	.165	.355	.315	.020	.500	.220	.120	.029
	.045	.185	.370	.325	.030	.562	.230	.160	.040
CY4e	.015	.240	.358	.326		.500			
	.050	.280	.362	MAX		MIN			
CY4f	.040	.165	.335	.305	.040	.500	.230		.029
	MAX	.185	.370	.335	MAX	MIN			.045



CY5

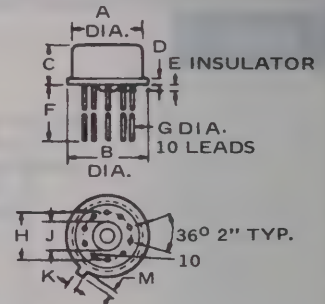


CY6

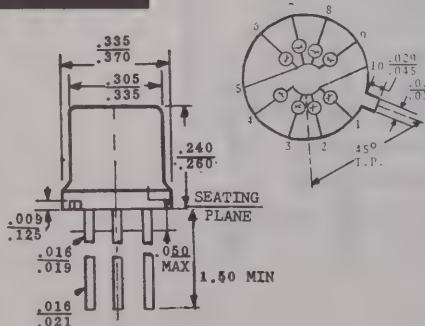


CY7

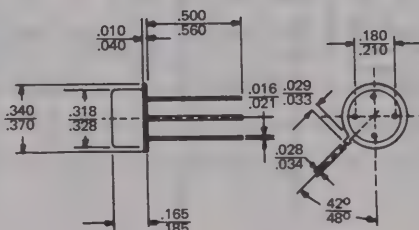
	A	B	C	D	E	F	G	H	J	K	M
CY7	.315	.365	.160	.020	.015	.750	.016	.220	.120	.028	.029
	.325	.370	.185	.030	.045	.810	.019	.240	.160	.034	.040
CY7a	.305	.335	.165	.040	.050	.600	.016	.230		.028	.029
	.335	.370	.185	MAX	MAX	MIN	.019			.034	.045
CY7b	.305	.335	.240	.040	.010	.600	.016	.230	.160	.028	.029
	.335	.370	.260	MAX	.040	MIN	.019	TP	MAX	.034	.045



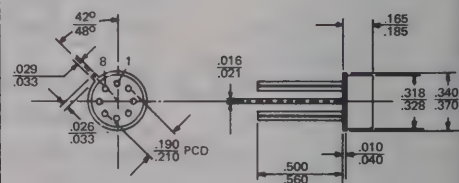
CY8



CY9



CY10



IN DRAWING NUMBER
SEQUENCE

CY11

.019 DIA
.016

500 MIN

185 MAX

.032 MAX
.302 MAX
.235 MAX

1 2 3 4 5 6 7 8 9 10

36°

.032 MAX
.034 MAX

BOTTOM VIEW

[illegible]

The diagram illustrates the physical dimensions and pin configuration of the FL3 package. Key dimensions include:

- Pin 1** and **Pin 13** are indicated at the top and bottom right.
- Leads** are shown on the right side, with a dimension of **0.050** and a note **LEADS 0.050**.
- Dimensions A, B, C, D, E, F, G** are labeled with arrows indicating specific measurements on the package.
- Dimensions .015 and .019** are shown at the top right, likely indicating lead thickness or spacing.

	A	B	C	D	E	F	G
FL3	.973	.283	.335	.408	.043		
	MAX	MAX	MIN	MAX	.063		
FL3a	.990	.270	.360	.390	.034	.016	.003
	MAX	MAX	MAX	MAX	.044	.023	.004
FL3b	.940	.245	.330	.370	.040	.011	.003
	.960	.275	.370	.395	.070	.039	.004

PIN 1

0.015

0.019

LEADS 0.050
± 0.005

0.250
MIN

0.550 DIA MAX

1 Ø70 MAX

PIN 18

THICKNESS 0.049
± 0.005

	A	B	C	D	E	F	G	H	J	K
FL5	.385	.015	.810			.045	.290	.275		
	MAX	.019	.920			.060	MAX	MIN		
FL5a	.370	.015	.950	.475	.188	.070	.245	.350	.017	.003
	.380	.018				MAX	.255	MIN		.008
FL5b	.375	.014	1.00			.052	.250		.025	.004
		.016	MAX			.065				.006
FL5c	.365	.015	.970			.061	.395	.300		.003
	.385	.019	.990			.072	.415	MIN		.006

Technical drawing of a 30-lead chip carrier. The top view shows a central square area with 30 leads extending outwards. Dimensions include .016 TYP. for lead width, .020 TYP. for lead spacing, .030 LEADS for the total lead count, .050 TYP. for the central square width, and PIN 1 for the starting point of the leads. The side view shows a .390 SQ. MAX. height for the central area and .008/.012 dimensions for the top edge, and .025/.030 dimensions for the bottom edge.

Technical drawing of a circular component with horizontal leads. The drawing shows a central circle with horizontal lines extending from both sides. Dimensions include: PIN 1 at the top left, PIN 11 at the bottom left, 0.225 MIN TYP for the lead width, 0.550 DIA MAX for the central circle, 0.995 MIN and 1.970 MAX for the total width, and 0.015 and 0.019 for the lead thickness. A note on the right says "LEADS 0.060 & TO &".

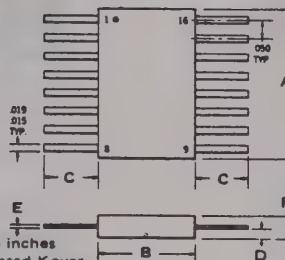
Technical drawing of the FL11 component. The side view (left) shows a component with pins E and F. The top view (right) shows a component with pins 1 through 7, dimensions A, B, C, and D, and a tolerance of .045 / .055.


	A	B	C	D	E	F
FL11	.185	.240	.365	.014	.065	.003
	.195	.270	.395	.017	MAX	.005
FL11a	.180	.240	.360	.010	.040	.003
	.190	.275	MIN	.019	.070	.006

Figure 1: Drawing of a typical 14-lead package. The drawing shows a square package with 14 leads. Key dimensions include: overall width/height of 0.17 ± .002 (14 LEADS); lead pitch of 0.050 ± .006 (TYP); lead thickness of 0.010" MAX GLASS CLIMB; lead width of 0.005 ± .001; and internal dimensions of 0.306" MIN, 0.051" MIN, 0.062" MIN, 0.405 ± .010, 0.020" MIN, 0.025" MIN, and 0.038" MIN. A section line A-A is indicated.

IN DRAWING NUMBER
SEQUENCE

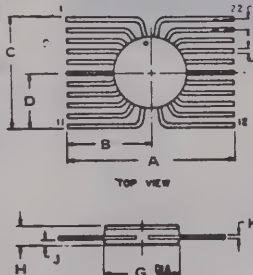
FL 14



NOTES: 
All dimensions in inches
Leads are gold-plated Kovar
Package weight is 0.4 gram

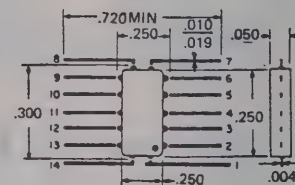
	A	B	C	D	E	F
FL14	.371	.247	.250	.024	.004	.050
	.409	.283	.350		.006	.075
FL14a	.370	.247	.250		.003	.053
	.400	.270	.370		.006	.065
FL14b	.390	.270	.260		.004	.045
	MAX	MAX	MIN			.060
FL14c	.360	.240	.070			.030
	.410	.275	MIN			.070
FL14d	.370	.245	.330	.011	.003	.040
	.395	.275	.370	.039	.004	.070

FL 16

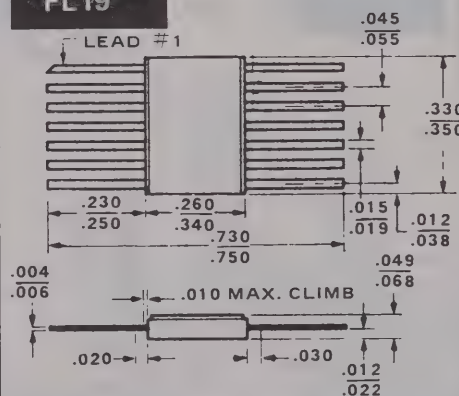


	A	B	C	D	E	F	G	H	J	K
FL16	.790	.395	.517	.258	.016	.048	.355	.076	.020	.004
					.019	.051	.365	.088	.045	.005
FL16a	.760				.016	.049	.349	.065	.035	.005
	.780				.018	.051	.353	.075	min.	

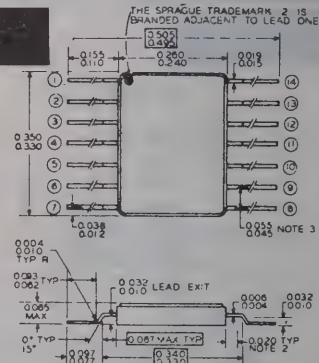
FL17



FL 19



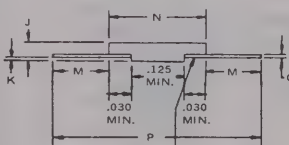
FL20



NOTES

- (1) BOXED DIMENSIONS ARE INSPECTED AFTER BEND
- (2) ALL DIMENSIONS IN INCHES
- (3) LEAD SPACING DIMENSIONS APPLY TO THIS AREA ONLY
- (4) SPACING TOLERANCES NON-CUMULATIVE

	A	B	C	D	G	H	J	K	M	N	P	Q
FL21	.280	.010	.008	.005	.050	.004	.030	.010	.165	.120	.450	.003
	MAX	.019	.015	MIN		MIN	.070	.040	.390	.220	MIN	.006
FL21a	.280	.010	.008	.005	.050	.004	.030	.010	.250	.240	.740	.003
	MAX	.019	.015	MIN		MIN	.085	.040	.370	.280	MIN	.006

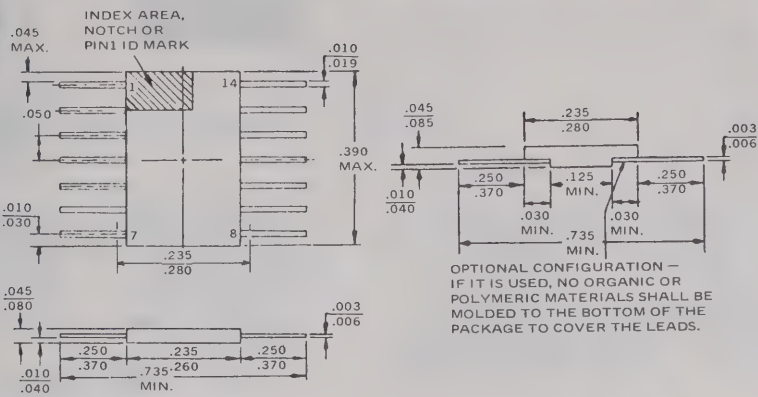


OPTIONAL CONFIGURATION
FOR F21a ONLY — IF IT IS
USED, NO ORGANIC OR
POLYMERIC MATERIAL SHALL
BE MOLDED TO THE BOTTOM
OF THE PACKAGE TO COVER
THE LEADS.

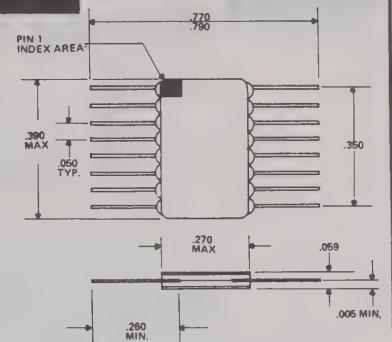
SECTION 10. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

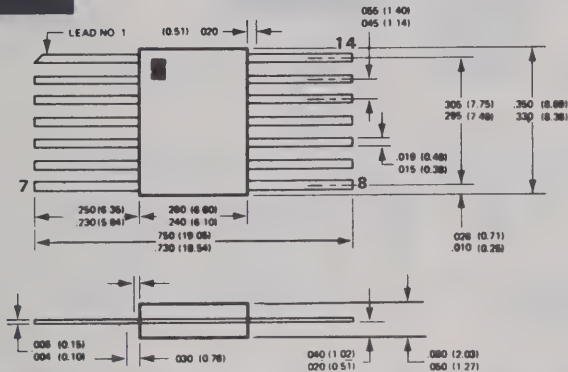
FL22



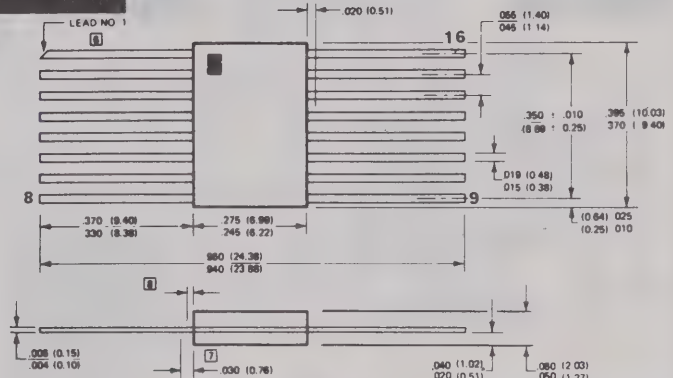
FL23



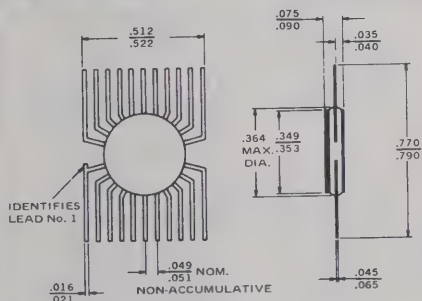
FL24



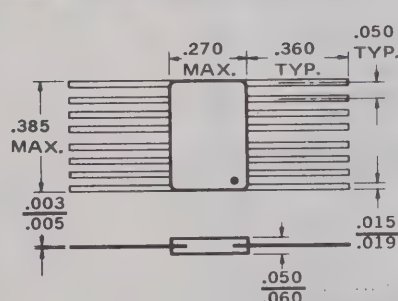
FL25



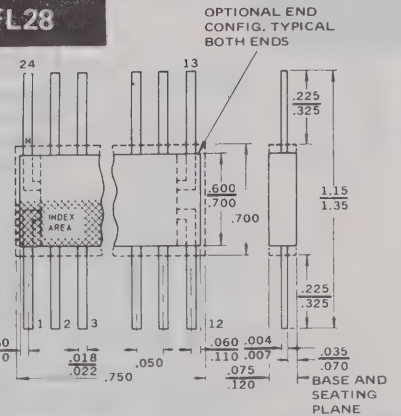
FL26



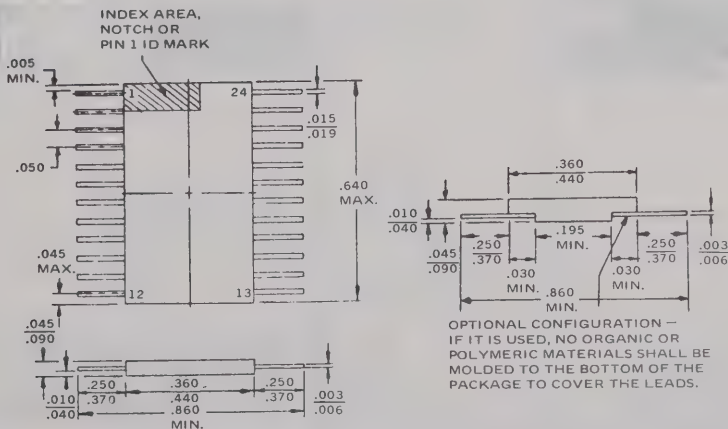
FL27



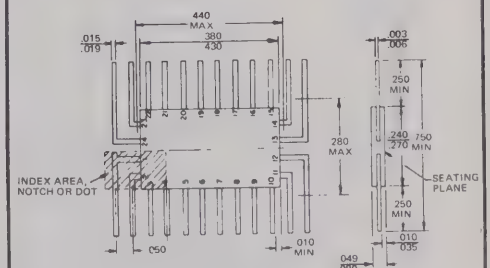
FL28



FL29



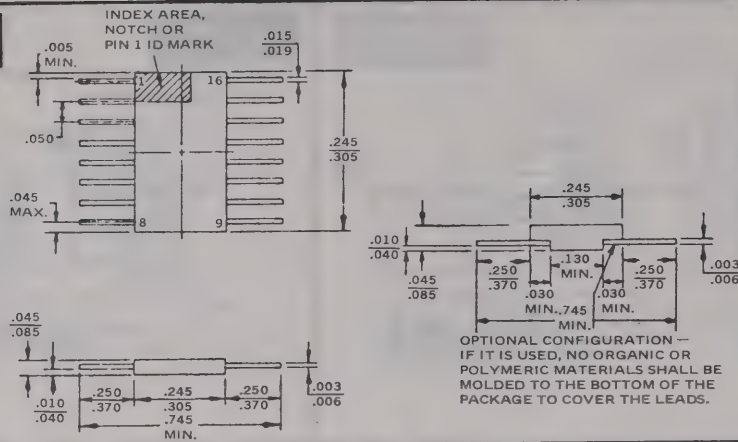
FL30



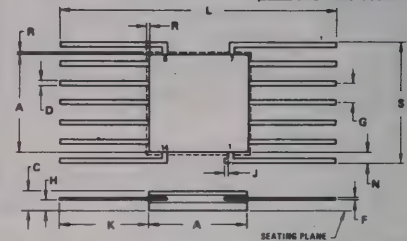
SECTION 10. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

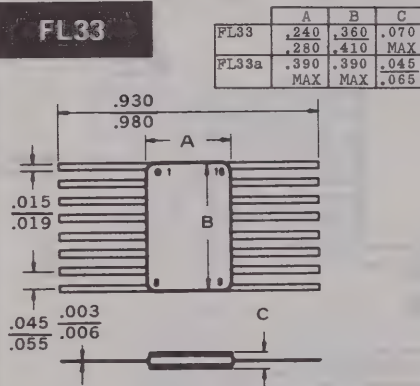
FL31



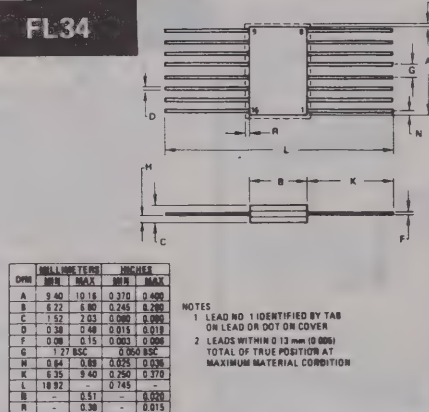
FL32



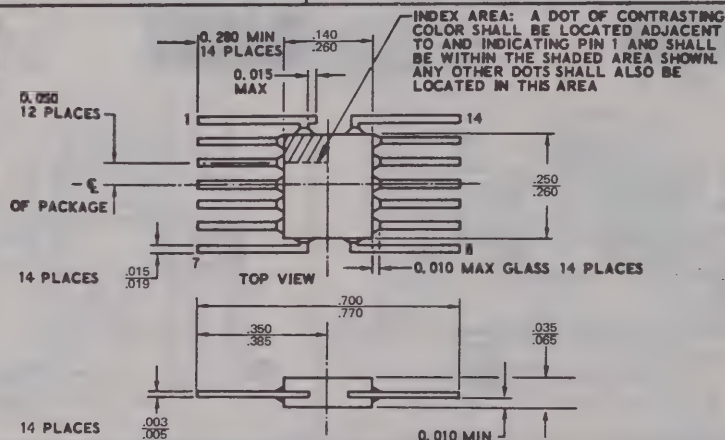
FL33



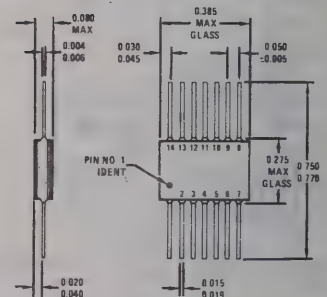
FL34



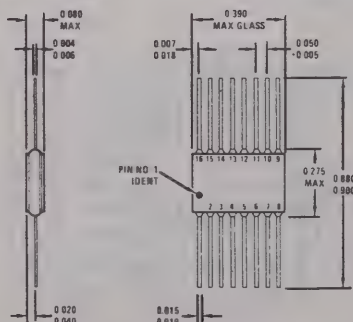
FL35



FL36



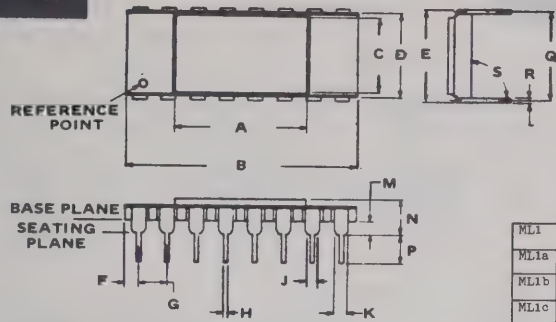
FL37



SECTION 10. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

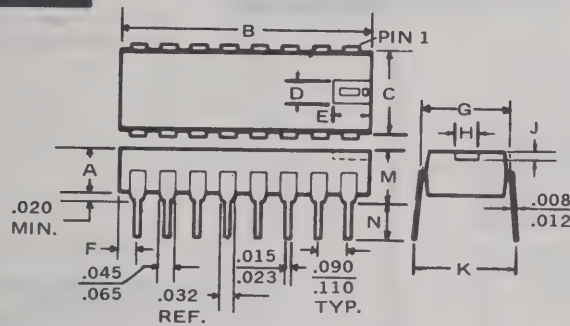
ML1



ML1c — HAS NOTCH ALSO.

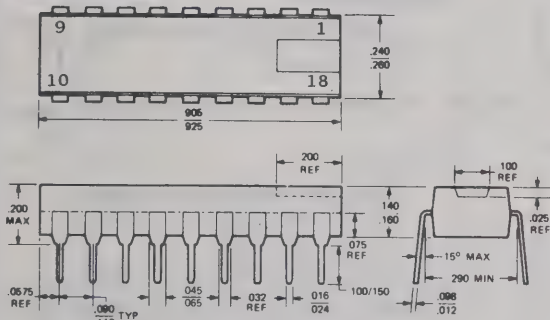
	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S
ML1	.800 MAX				.320 MAX	.102 MAX					.018 MIN	.180 MAX		.300		
ML1a	.808 MAX				.294 MAX	.092 MAX					.015 MIN	.194 MAX	.130	.294 MAX		
ML1b	.462 .468	.790 .810	.273 .279	.275 .295	.320 MAX	.045 .055	.090 .110	.016 .020	.031 .035	.048 .052	.025 .050	.198 MAX	.100 MIN	.300 MIN	.008 .012	90° 95°
ML1c	.740 .870	.275 .310	.275 .310	.290 .320		.090 .110	.016 .023			.040 .070	.020 MIN	.180 MAX	.125 MIN	.290 .320	.008 .015	

ML2



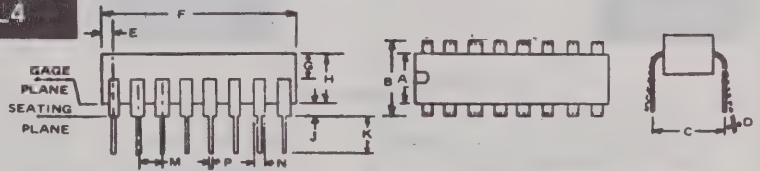
	A	B	C	D	E	F	G	H	J	K	M	N
ML2	.130 .155	.820 .850	.245 .255	.075	.125	.062	.310	.075	.025	.290 .410	.200 MAX	.100 MIN
ML2a	.145 .155	.820 .850	.245 .255	.075	.125	.062	.290 .310	.075	.025	.220 .330	.200 MAX	.100 MIN
ML2b	.082 .100	.750 MAX	.265 MAX				.300 .310			.330 .370	.200 MAX	.100 MIN
ML2c	.180 .180	.800 .800	.270 .270				.300 .300			.200 MAX	.100 MIN	
ML2d	.125 .155	.745 .855	.245 .255	.060 .075	.060 .125	.025 .063	.290 .310	.060 .075	.025	.290 .410	.200 MAX	.100 MIN
ML2e	.140 MAX	.890 MAX	.260 MAX	.080	.080	.030			.030	.310 .350	.175 MAX	.125 MIN
ML2f	.170 .170	.744 .857	.240 .267				.324 MAX			.220 .375	.155 MAX	.122 MIN
ML2g		.870 MAX	.260 MAX				.300 .324			.350 .290	.200 MAX	.130 TYP
ML2h	.180 .180	.881 MAX	.240 .255							.290 .375	.100 MAX	.104 MIN
ML2j		.870 MAX	.220 .280						.020 .040	.200 MAX	.100 MIN	

ML3



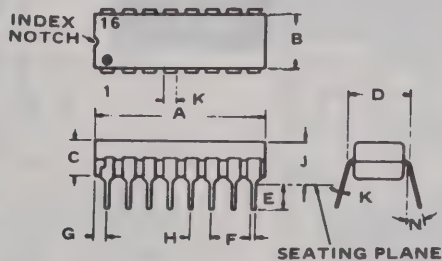
ML3a—HAS DOT AT PIN 1 NOT NOTCH

ML4



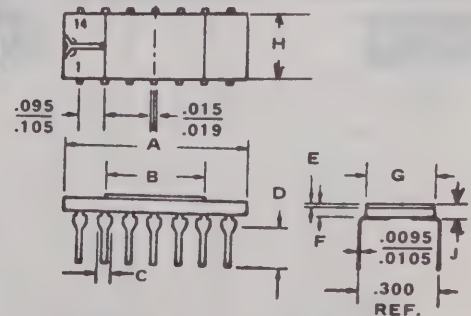
	A	B	C	D	E	F	G	H	J	K	M	N	P	REMARKS
ML4	.265 .285	.300 .325	.300	.008 .012	.050 MAX	.800 .840	.050 .080	.020 .020	.100 .150	.045 .070	.015 .021			
ML4a	.244 .255	.300 MAX	.350	.007 MAX	.818 MAX		.100 .160	.050 .020	.125 .125	.100			.020	NOTCHED
ML4b	.265 MAX	.300 MAX	.350	.010 MAX	.800 MAX		.160 .180	.020 .020	.125 .100	.100			.019	NOTCHED
ML4c		.300 MAX	.325	.007 MAX	.800 MAX		.180 .165	.020 .020	.100 .100	.100			.015 .023	
ML4d	.220 .280	.290 .310	.290 .310	.008 .015	.747 .815		.200 MAX	.100 MIN	.090 .110	.030 .070			.014 .023	NOTCHED OR DOT
ML4e	.866 MAX	.866 MAX	.324 MAX	.125 MAX	.866 MAX	.031 .039	.149 .100	.035 MIN	.104 .130	.100			.017	DOT ONLY
ML4f	.265 MAX	.300 MAX	.330	.008 .011	.750 MAX		.052 .100	.100 .130	.100	.050			.017	DOT ONLY
ML4g	.240 .260	.300 .325	.300	.008 .012	.745 .785		.100 .135	.020 .065	.125 .150	.100			.014 .020	

ML5



	A	B	C	D	E	F	G	H	J	K	L	M	N
ML5	.740 .780	.240 .275	.135 .165	.290 .325	.115 .135	.015 .020	.015 .035	.090 .110	.170 .200	.006 .012			0° 15°
ML5a	.795 MAX	.286 MAX		.300 TYP	.118 MIN	.020 TYP		.100 TYP	.197 MAX	.008 .014	.019 MIN	.299 .394	
ML5b	.815 .835	.240 .260	.025 .035	.290 .310	.115 .135	.015 .020	.052 .072	.100 .180	.160 .180	.008 .012			10°

ML6



	A	B	C	D	E	F	G	H	J
ML6	.735 .745	.395 .405	.045 .050	.160	.013 .017	.055 .065	.270 .280	.270 .280	
ML6a	.720 .760	.360 .420	.040 MIN	.090			.255 .285	.255 .295	.100 MIN

IN DRAWING NUMBER
SEQUENCE

Technical drawing of a mechanical part, likely a bracket or plate, showing top and side views with dimensions in inches.

Top View Dimensions:

- Overall Width: 1.165, 1.175
- Overall Height: 0.495, 0.505
- Central Slot Width: 0.295, 0.305
- Central Slot Depth: 0.060, 0.070
- Central Hole Diameter: 0.060, 0.070
- Rectangular Hole Width: 0.120, 0.130
- Rectangular Hole Depth: 0.060, 0.070
- Top Edge Dimensions: 0.090, 0.100
- Bottom Edge Dimensions: 0.013, 0.017

Side View Dimensions:

- Overall Height: 0.600
- Reference Line (REF)
- Top Surface Dimensions: 0.0095, 0.0105
- Bottom Surface Dimensions: 0.155, 0.165
- Bottom Surface Width: 0.100 TYP
- Bottom Surface Depth: 0.028, 0.032
- Bottom Surface Height: 0.015, 0.019
- Bottom Surface Thickness: 0.025, 0.035
- Bottom Surface Width: 0.395, 0.405
- Bottom Surface Height: 0.055, 0.065

	A	B	C	D	E	F	G	H	J	K	M	N	P	Q
MLS	.380		.032			.020	.042	.200		.017	.008	ON	.050	.400
	.400		REF			.41N	.082	.200		.023	.012	15°	.070	
MLsa	.375	.425	.040	1.065	.095	.025	.085	.125	.100	.017	.008	0°		
	.405	REF	REF	1.100	.105	.050	.130	15°	1. P.	.023	.012	7°		

Figure 1: Dimensions of the 14-pin DIP package. The diagram shows three views: a side view, a top view, and a bottom view. The side view shows a width of 250 ± 0.013 and a height of 170 MIN. The top view shows a length of 700 ± 0.013 and pin numbers 1 through 14. The bottom view shows a lead spacing of 100 and a lead diameter of 0.021 ± 0.003 . The package is designed for 0.035 standoff when using .040 dia holes in a printed circuit board.

A		REMARKS
ML10	.030 MAX	LEAD FRAME MAY BE ATTACHED AS SHOWN OR ON BOTTOM
ML10a	.030 MAX	AS SHOWN ONLY
ML10b	.030 MAX	AS SHOWN ONLY
ML10c	.050 MAX	AS SHOWN ONLY

Technical drawing of a rectangular plate. The main view shows a plate with overall dimensions of 1.430 (width) and 1.350 (height). The corners are numbered 1, 26, 13, and 14. A detail view of the left edge shows a series of rectangular slots. The dimensions for the detail view are: slot width .020, slot height .100, and the distance between the centerlines of the slots is .019. A second detail view shows a cross-section of the plate with a thickness of .200, a fillet radius of .100, and a base width of .010. The overall width of the base is 1.500.

[illegible]

ML13

	A	B	C	D	E	F	G	H	J
ML14	.500	.600	.011 MAX	.130	.020 MIN	.021 MAX	2.00	.100	.125 .185
ML14a		.585 .615	.010	.185 MAX	.020 MIN	.021 MAX	2.02	.085 .115	.120 .180
ML14b	.510 MAX	.600	.011 MAX	.130	.025 MIN	.021 MAX	2.01	.100	.200 MIN

ML15

.090
.110 TYP

NON CUMULATIVE

G

F

100 MIN

610 MIN

A

B

D

NOTCH

A₀ 1

F 2

R 3

D₁ 4

D₂ 5

D₃ 6

D₄ 7

G 8

36 VCC

15 A₁

14 A₂

13 A₃

12 D₅

11 D₆

10 D₇

9 D₈

E

	A	B	C	D	E	F	G
ML15	.325 MAX	.220 MAX	.008 MAX	0° 15°	.750 MAX	.015 MAX	.200 MAX
ML15a	.290 MAX	.265 MAX	.009 MAX		.755 MAX	.016 MAX	.170 MAX
	.310	.291	.011		.758	.020	.219

	A	B	C	D	E	F	G	H	J	K	M
ML16	.785	.240	.020	.200	.100	.090	.015	.040	.008	0°	.29
	MAX	.280	.030	MAX	MIL	.110	.023	.060	.012	15°	.31
ML16a	.745	.240		.110	.125	.100	.016	.050	.009		.29
	.770	.260		.140	MIL		.020	.054	.012		.31

IN DRAWING NUMBER
SEQUENCE

[illegible]

Diagram of a 14-pin DIP package showing dimensions and lead identification. The package is shown in a side view with dimensions labeled: C (lead width), F (lead pitch), H₁ (lead height), G (body height), A (body width), B (package width), and D (lead thickness). The leads are numbered 1 through 14. An arrow points to the top right corner with the text "LEAD IDENTIFICATION MARK IN THIS AREA." The bottom left corner is labeled "SEATING PLANE (TYP. INSTALLED WIDTH)".

	A	B	C	D	E	F	G	H
ML19	760	290	150	009	200	090	015	
	785	310	M1N	011	MAX	110	023	
ML19a	680	325	100	008	240	090	015	
	785	310	M1N	015	MAX	110	023	
ML19b	685	305	130	009	235	200	090	015
	715	MAX	MAX	010	265	MAX	110	023
ML19c	775	350	150		200	200	090	015
	775	MAX	150		MAX	MAX	110	023
ML19d	760	325	100	007	240	090	015	
	785	310	MAX	165	014	MAX	110	
ML19e	660	290	100	008	220	200	090	015
	785	310	M1N	015	280	200	110	023
ML19f	755	290	130	008	280	200	090	015
	785	310	M1N	014		MAX	110	023
ML19g	767	324	190			MAX		

LONGITUDINAL STRIPE

INDEX DOT

2 100

1 930

530

475

20

21

142

015

008

650

59

30°-20°

160 MAX INCLUDING LID

020 MIN

090 MIN

090 TYP

020 MAX INCLUDING LID

Figure 1 shows the dimensions and tolerances of the test specimens. (A) Top view of a rectangular specimen with dimensions 24, 13, 1, 12, A, and B. A central square hole is shown. (B) Side view of the specimen showing a thickness of 1.10 mm and a tolerance of ± 0.05 mm. (C) Detail view of the corner of the specimen showing a fillet radius of 0.20 mm and a chamfer angle of 0° to 20° .

	A	B	C	D	E	F	G	REMARKS
ML21	.475	1.13	.008	.596	.160	.090	.014	INDEX DOT
	.520	1.25	.015	.600	.180	MIN	.020	ONLY
ML21a	.520	.25	.010	.600	.180	.125	.019	NOTCH ONLY
ML21b	.545	1.300	.010	.650	.195	.215	.020	INDEX DOT
	.515	1.200	.008	.600	.120	.140	.013	ONLY
ML21c	.495	1.24	.010	.600	.157	.090	.015	NO INDEX DOT
	.590	1.30				MIN	.019	NO NOTCH

	A	B	C	D	E	F	G	H	J
ML22	240	740	160	090	020	090	014	290	008
	295	830	MAX	MIN	MIN	110	025	350	015
ML22a	235	735	200	115	015	090	015	290	008
	293	815	MAX	135	MIN	110	023	410	015
ML22b	245	810	110	090	020	100	014		010
	250	830		MIN	MIN		019		

	A	B	C	D	E	F	G	H	J
ML23	1.250	.515	.110	.125	.015			.250	.0085
	1.290	.545	.135	TYP	.025			TYP	.0095
ML23a	1.250	.515	.110	.125	.015			.250	.0085
	1.290	.545	.135	TYP	.025			TYP	.0095
ML23b	1.300	.495	.137	.090	.015	.397	.397		
	MAX	.595	MAX	MIN	.019	.495	.495		TYP

	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S
ML25	.900	.280					.280	.010	.300	.090		.032	.054	.100	.230	.040
ML25a	.890	.278	.460	.040	.025	.290	.271	.009	.375	.125	.065	.016	.040	.095	.125	.040
	.910	.288	.470	.060		.310	.281	.011		.155	.085	.020	.045	.105	.175	.060

IN DRAWING NUMBER
SEQUENCE

Technical drawing of a 16-pin DIP package. The top view shows a rectangular package with 16 pins (8 on each side) and a maximum width of .190 MAX. The side view shows a maximum height of .175 MAX and a maximum pin length of .090 MAX. The pin pitch is specified as 11 EQ SPACES AT .050 INCHES.

Technical drawing of the ML27 integrated circuit package. The drawing shows a top view and a side view. The top view is a rectangular package with a notch on the right side. It has 14 pins on the left side and 10 pins on the right side. Dimensions are given in millimeters: overall width is 1.25, overall height is 0.520, notch width is 0.020, pin pitch is 0.125, pin width is 0.180 MAX, and pin spacing from the package edge is 0.019 and 0.100. The side view shows the package height and the pin arrangement.

BASE PLANE
SEATING PLANE
GUAGE PLANE

	A	B	C	D	E	F	G	H	I	J	K	M	N	REMARK
ML30	1.18	1.90	.600	.815	.090	.020	.100		.300	2	.945	.015	NO NOTCH	
	1.22	520	.625	.050	.200		.150			15	.070	.021		
ML30a	1.22	.500	.545		.110		.100	.040		0		.015		
	1.26	.520	.600		.150		.140			15		.018		
ML30b	1.25	.520	.600		.180		.125	.020	.650			.010		
					MAX				MAX					
ML30c	1.23	.515			.150		.100	.025	.750			.016		
	1.29	.575			.273		.800	.063	MAX			.026		
ML30d	1.21	.520	.625		.200		.230	.750		0	.055	.015		
	1.28	.550	MAX		MAX		MIN	MIN	MAX	15		.023		
ML30e	1.15	.480	.600	.020	.090	.000	.100	.020	.600	0	.045	.015	NO NOTCH	
	1.22	.620	.625	.080	.150	.030	.180	.065		15	.055	.020		
ML30f	1.23				.160		.060		.500			.016		
		.540			.200		.040			15		.020		

Technical drawing of the ML31 component. The drawing includes three views: a top view, a side view, and a front view. The top view shows a rectangular plate with dimensions 24 (width) and 13 (height). It features a central rectangular area with dimensions 1 (width) and 12 (height). The side view shows the component's profile with dimensions G (total width), A (height), and E (height). The front view shows the component's base with dimensions F (width), H (height), and C (height). The component is labeled ML31.

	A	B	C	D	E	F	G	H	I
ML31	.150	.075	.145	1.17	1.00	.010	.100	.600	.500
ML31a	.100	.031	.160	1.17	1.00	.010	.100	.600	.500
ML31b	.100		.171	1.37	1.00	.010	.600	.017	.500

	A	B	C	D	E	F	G	H	J
ML32	1.37	.500	.150	.600	.145	.075	.017	.010	.100
ML32a	1.40	.500	.150	.600	.145	.075	.017	.010	.100
ML32b	1.37		.100	.550	.160	.081	.017	.010	.100
				MAX					

[illegible]

Technical drawing of a 16-pin DIP package showing top, side, and end views with dimensions:

- Top View:**
 - Pin pitch: .500 TYP
 - Index dot location: INDEX DOT
 - Pin diameter: .011 MAX
 - Pin length: .010 TYP
 - Body width: .300 TYP
 - Pin diameter: .011 MAX
 - Pin length: .010 TYP
- Side View:**
 - Pin height: .130
 - Pin diameter: .011 MAX
 - Pin length: .010 TYP
- End View:**
 - Pin pitch: .021 MAX
 - Pin diameter: .020 MIN
 - Pin length: .186
 - Pin diameter: .126
 - Pin length: .186 TYP

0.035
TYP
RAD
MECHANICAL
INDEX
POINT

14

0.240
0.260

0.030
0.070

0.025
TYP

0.710
0.740

0.200
MAX

0.100
MAX

0.062
TYP

0.100
TYP REF

0.015
0.023

SEATING PLANE

7° DRAFT
TYP

0.030
TYP

0.008
0.013

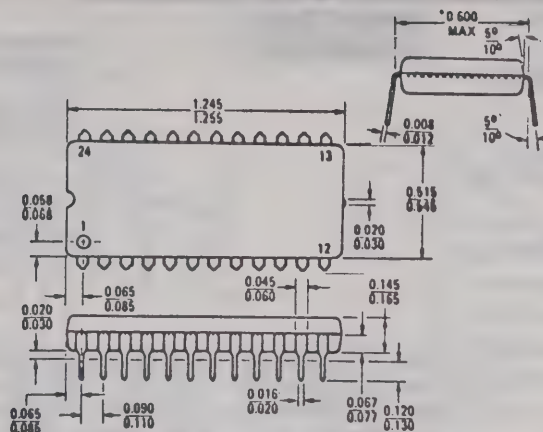
0.290
0.310

③
①

SECTION 10. OUTLINE DRAWINGS

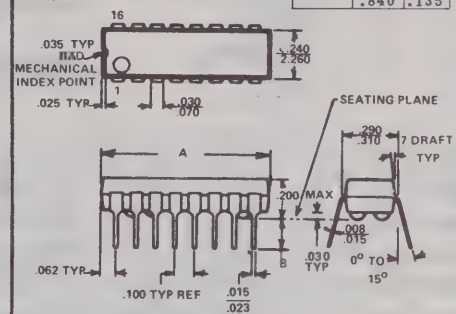
IN DRAWING NUMBER
SEQUENCE

ML39

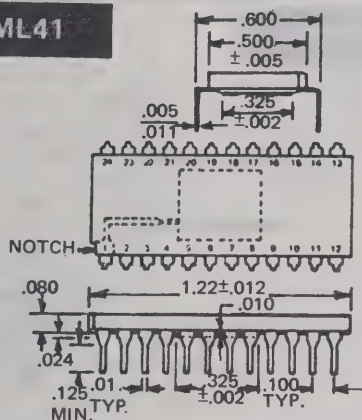


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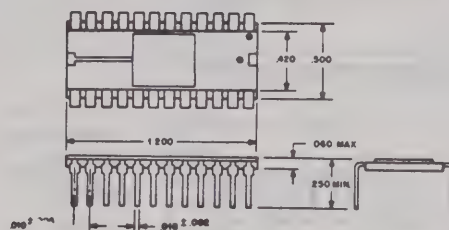
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ML40	.860 MAX	.100 MIN
ML40a	.810 MAX	.115 MIN
	.840 MAX	.135 MIN



ML41

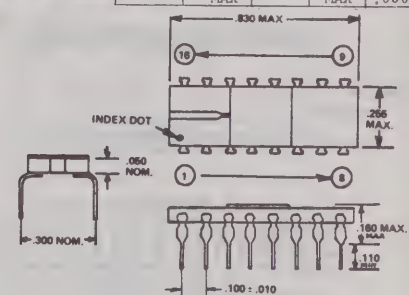


ML42



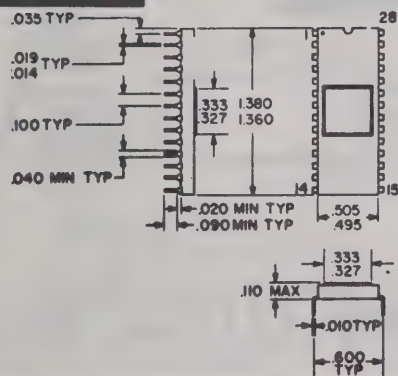
ML43

	A	B	C	D
ML43	.255 MAX	.050	.160 MAX	
ML43a	.290 MAX	.070	.170 MAX	.045 MAX, .050

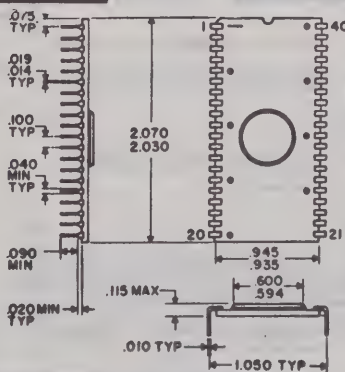


NOTE: LEADS MAY BE BRAZED TO SIDES OR BOTTOM OF PACKAGE.

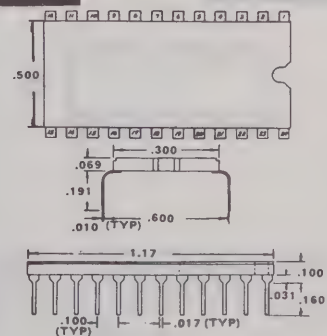
ML44



ML45



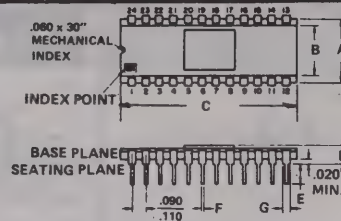
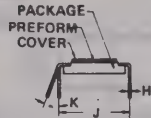
ML46



SECTION 10. OUTLINE DRAWINGS

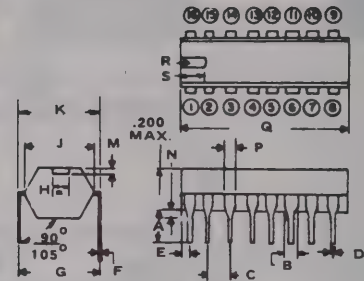
IN DRAWING NUMBER
SEQUENCE

ML47



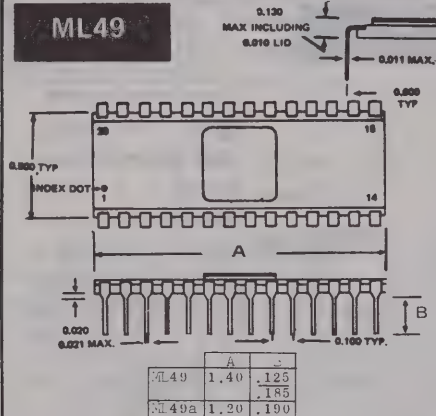
	A	B	C	D	E	F	G	H	J	K	REMARKS
ML47	.450 .470	.355 .365		.150 MAX	.050 .150	.017 .023	.045 .055	.007 .011	.490 .510	0° 20°	
ML47a	.470 .530		1.14 1.23	MIN	.070 MIN	.100 .022	.015 .022	.009 .011	.750 MAX		INDEX POINT ONLY NO NOTCH
ML47b	.500		1.20	MAX	.130 MAX	.100 .185	.021 MAX	.011 MAX	.600		INDEX POINT ONLY
ML47c	.490 .580		1.10 1.25	MAX	.140 MAX	.120 .140	.017 .023	.008 .012	.590 .670		INDEX POINT ONLY
ML47d	.500		1.40	MAX	.130 MAX	.190	.021 MAX	.011 MAX	.600		INDEX POINT ONLY
ML47e	.480 .510		1.19 1.23		.100 .120	.145 .175	.015 .021	.045 .060	.008 .012	.625 .675	

ML48

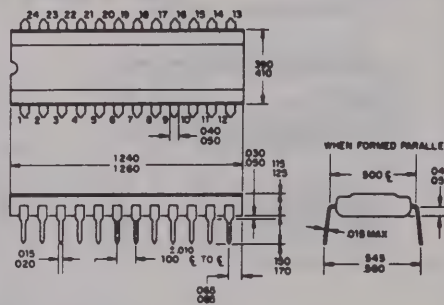


	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S
ML48	.125 MIN	.033 MIN	.100	.015 MIN	.100	.008 MIN	.300 MIN	.080	.240 MIN	.220 MIN	.010	.020 MIN	.070 MAX	.870 MAX	.093	.160
ML48a	.140 MIN	.036 MIN	.100	.018 MIN	.100	.014 MIN	.350 MIN		.260 MIN	.310 MIN	.010					
ML48b	.125 MIN	.033 MIN	.100	.014 MIN	.031 MAX				.7.37 7.87			.020		.881 MAX		

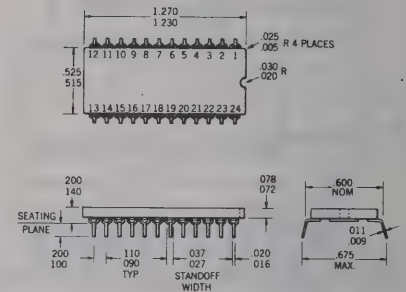
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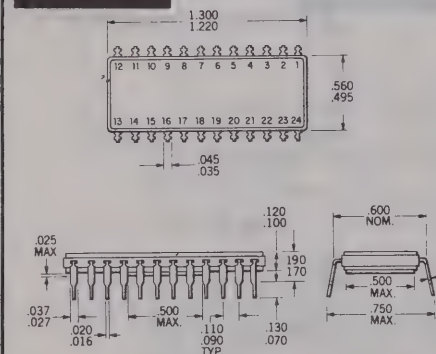
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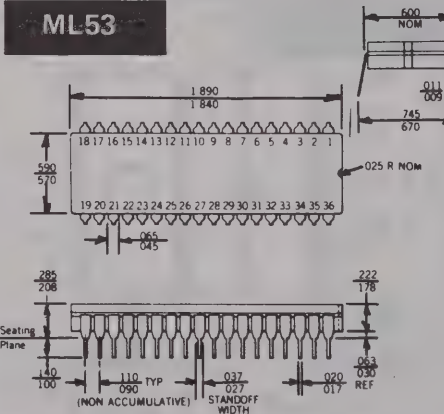
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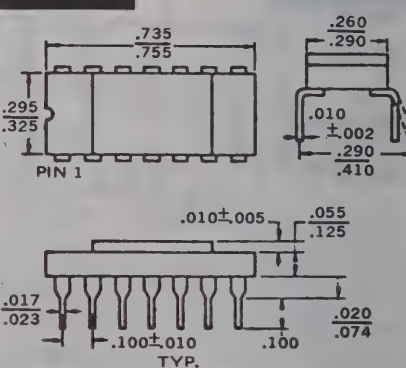
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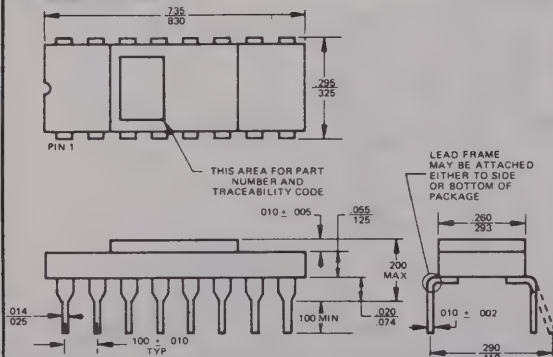
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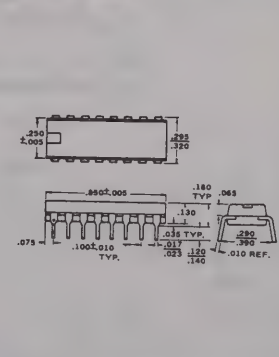
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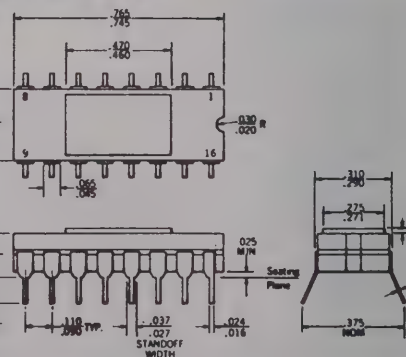
ML55



ML56



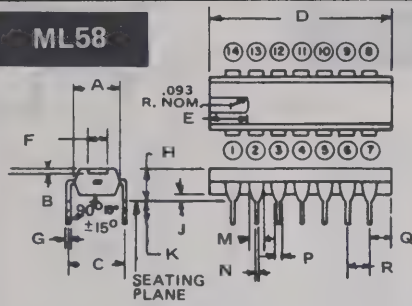
ML57



SECTION 10. OUTLINE DRAWINGS

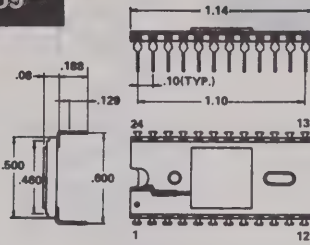
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SEQUENCE

ML58

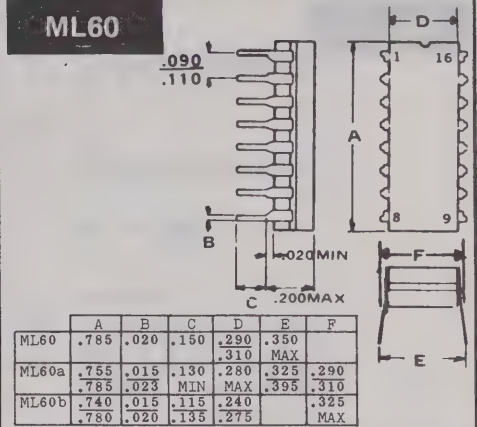


	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R
ML58	.240	.030	.290	.770	.110	.080	.008	.200	.014	.110	.055	.015	.033	.065	.021
	.310		MAX	MAX					MAX	.020	.125	.065	MIN	.085	.091
ML58a	.240	.010	.300	.710	.110	.080	.008	.200	.020	.125	.070	.015	.038	.055	.100
	.260		.350	.770			.014	MAX	MIN	MIN		.021	MIN	.095	

ML59

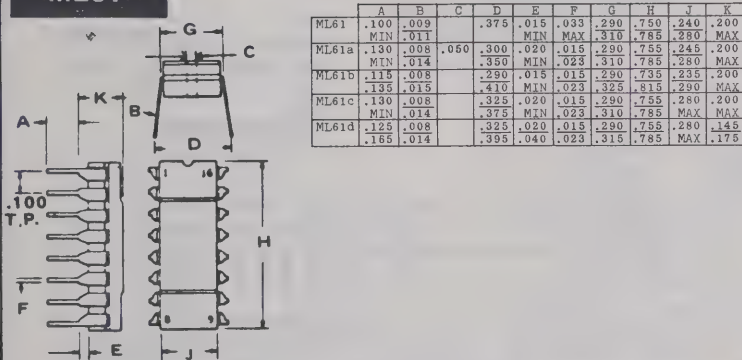


ML60



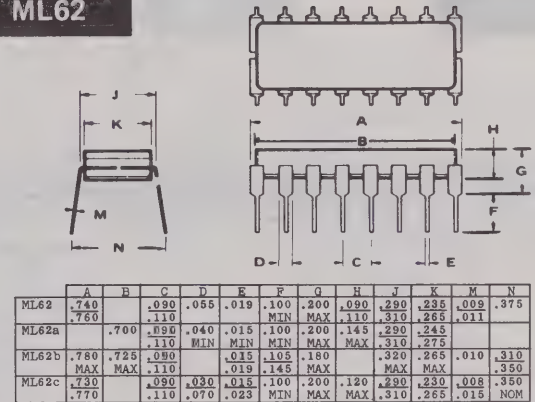
	A	B	C	D	E	F
ML60	.785	.020	.150	.290	.350	
				.310	MAX	
ML60a	.755	.015	.130	.280	.325	.290
	.785	.023	MIN	MAX	.395	.310
ML60b	.740	.015	.115	.240	.325	.325
	.780	.020	.135	.275	MAX	

ML61



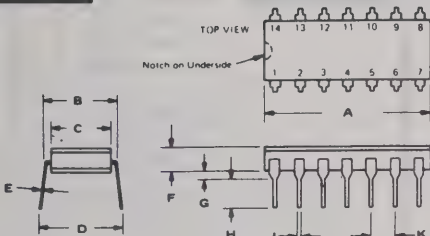
	A	B	C	D	E	F	G	H	J	K
ML61	.100	.009		.375	.015	.033	.290	.750	.240	.200
	MIN	.011		MIN	MAX	.310	.785	.280	MAX	
ML61a	.130	.008	.060	.300	.020	.015	.290	.755	.245	.200
	MIN	.014		.350	MIN	.023	.310	.785	.280	MAX
ML61b	.115	.008		.290	.015	.015	.290	.735	.235	.200
	.135	.015		.410	MIN	.023	.325	.815	.290	MAX
ML61c	.130	.008		.325	.020	.015	.290	.755	.280	.200
	MIN	.014		.375	MIN	.023	.310	.785	MAX	MAX
ML61d	.125	.008		.325	.020	.015	.290	.755	.280	.145
	.165	.014		.395	.040	.023	.315	.785	MAX	.175

ML62



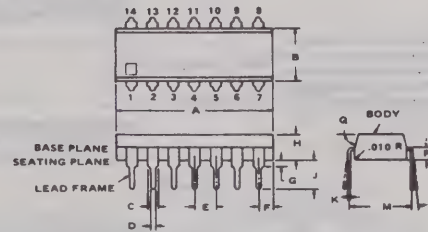
	A	B	C	D	E	F	G	H	J	K	M	N
ML62	.740		.090	.055	.019	.100	.200	.090	.290	.235	.009	.375
	.760		.110			MIN	MAX	.110	.310	.265	.011	
ML62a		.700		.040	.015	.100	.200	.145	.290	.245		
		.110	MIN	MIN	MIN	MAX	MAX	.310	.275			
ML62b	.760	.725	.080		.015	.105	.180	.320	.265	.010	.310	
	MAX	MAX	.110		.019	.145	MAX	MAX	MAX		.350	
ML62c	.730		.090	.030	.015	.100	.200	.120	.290	.230	.008	.350
	.770		.110	.070	.023	MIN	MAX	MAX	.310	.265	.015	NOM

ML63



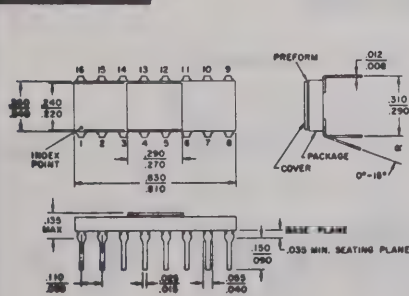
	A	B	C	D	E	F	G	H	J	K
ML63	.685	.300	.246	.350	.009	.104	.050	.125	.020	.100
	.715		.256		.011	MAX	MIN	MIN		
ML63a	.725	.300	.265	.310	.010	.180	.020	.105	.015	.090
	MAX	MAX	MAX	.350		MAX		.145	.019	.110

ML64

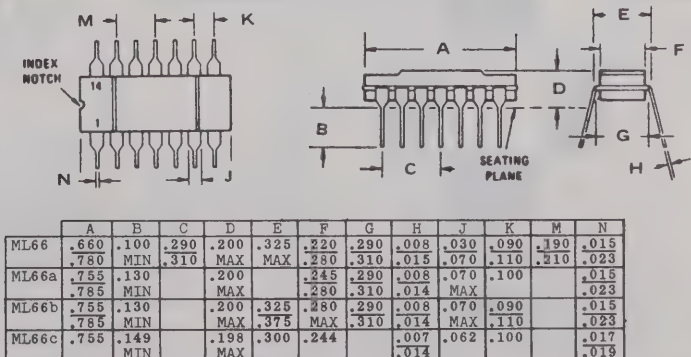


	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	REMARKS
ML64	.760	.245	.050	.015	.090	.065	.015	.115	.135	.015	.290		0°	70°	
	.780	.255	.054	.021	.110	.085	.035	.125	.165	.020	.310		20°		INDEX NOTCH
ML64a	.755	.235	.045	.015	.090		.020	.140	.180	.009	.350				
	.775	.255	.060	.018	.110		.030		MAX	.012	.400				INDEX NOTCH
ML64c	.755	.244	.051	.018	.100		.019	.196	.101	.007	.300		0°	15°	
							MIN	MIN	.014						

ML65



ML66

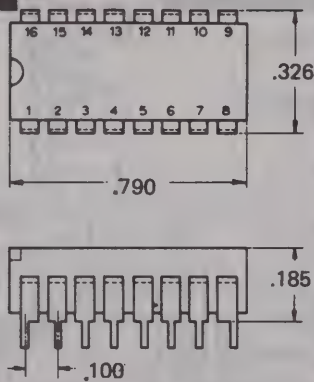


	A	B	C	D	E	F	G	H	J	K	M	N
ML66	.660	.100		.290	.325	.220	.290	.008	.030	.090	.190	.015
	.780	MIN	.310	MAX	MAX	.280	.310	.015	.070	.110	.210	.023
ML66a	.755	.130		.200		.245	.290	.008	.070	.100		.015
	.785	MIN		MAX		.280	.310	.014	MAX			.023
ML66b	.755	.130		.200	.325	.280	.290	.008	.070	.090		.015
	.785	MIN		MAX	.375	MAX	.310	.014	MAX	.110		.023
ML66c	.755	.149		.300	.244			.007	.062	.100		.017
		MIN		MAX				.014				.019

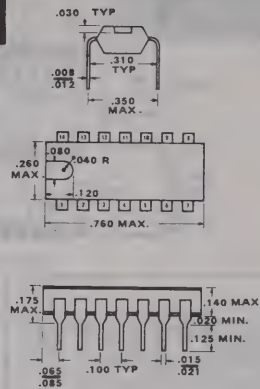
SECTION 10. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

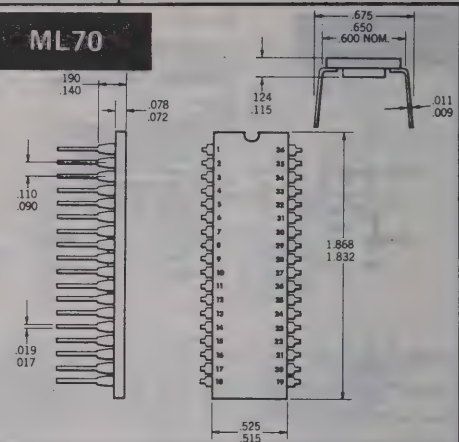
ML67



ML69



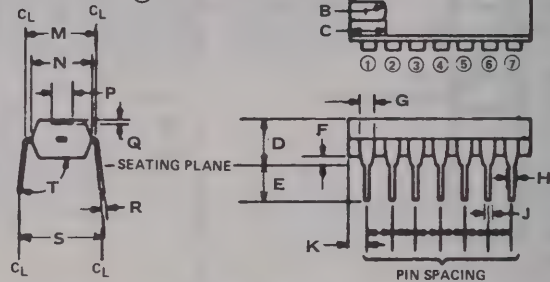
ML70



ML71

	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S	T
ML71	.710	.093	.110	.200	.125	.020	.070	.033	.015	.055	.290	.240	.080	.010	.008	.300	90°
ML71a	.770			MAX	MIN	MIN		MIN	.021	.095	.310	.260			.014	.350	105°
	.783			MAX	MIN	MIN		MIN	.036	.015	.055	.290			.014		
	MAX							MIN	.018	.094	.310				MAX		

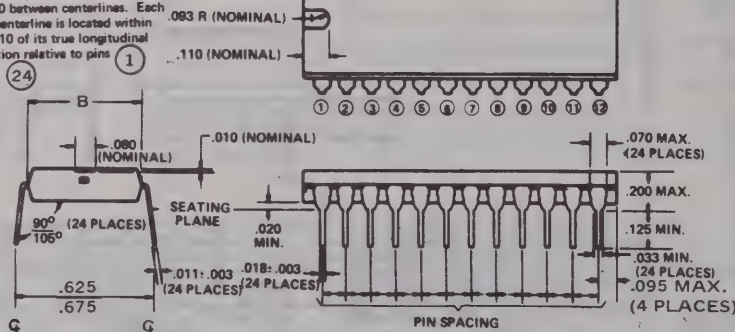
NOTES: a. The true-position pin spacing is 0.100 between centerlines. Each pin centerline is located within ±0.010 of its true longitudinal position relative to pins ④ and ⑪.



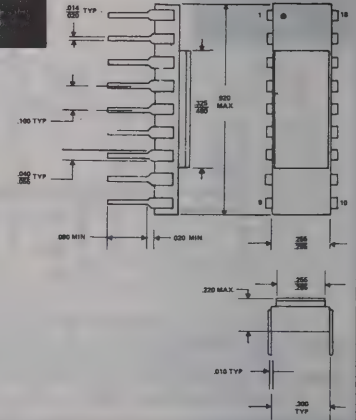
ML72

NOTES: a. The true-position pin spacing is 0.100 between centerlines. Each pin centerline is located within ±0.010 of its true longitudinal position relative to pins ① and ②④.

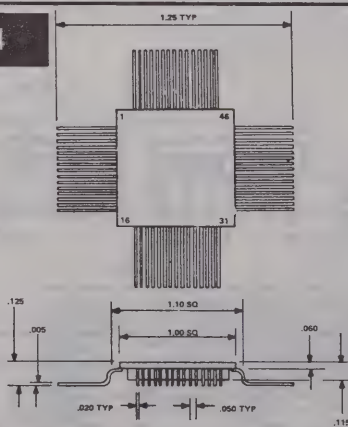
	A	B
ML72	1.310	.550
ML72a	MAX	NOM
	1.245	.585
	1.255	.595



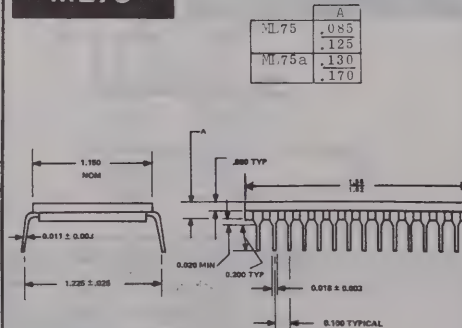
ML73



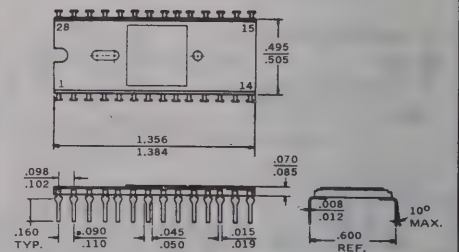
ML74



ML75



ML76



IN DRAWING NUMBER
SEQUENCE

Fig. 1. Dimensions of the test specimens. (A) Top view of a rectangular specimen with dimensions 16, 9, 1, 8, and 1. (B) Side view of a specimen with dimensions G, H, J, P, N, M, K, C, D, E, and F.

	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	REMARKS
ML78	.805	.270	.300	.060	.008	0 ^a	.400	.190	.015	.135	.15	.045	.100	.020	
	.835	.280		.085	.012	7 ^a		.210		.190	.020	.055		.055	
ML78a	.818	.272	.300	.078	.010	0 ^a	.379			.080	.016	.050	.100	.039	NO INDEX NOTCH
				MAX		15 ^a				.149					

Technical drawing of a mechanical part with dimensions in inches and degrees. The drawing shows three views: a top view, a side view, and a cross-sectional view. The top view shows a rectangular part with a central slot and a series of holes along the top and bottom edges. The side view shows the profile of the part with a curved top and a series of holes along the bottom edge. The cross-sectional view shows the internal structure of the part, including a central slot and a series of holes along the bottom edge. Dimensions are given in inches and degrees.

Dimensions (inches):

- Top view: 0.075 RADIUS, 0.16, 0.08, 0.012, 0.005 MAX, 0.240, 0.260, 0.015, 0.835, 0.160, 0.180, 0.045, 0.055, 0.300 MAX, 0.115, 0.135.
- Side view: 0.057, 0.058, 1.395, 0.105, 0.45, 0.305, 0.195, 0.205, 0.015, 0.008, 0.018, 0.012, 0.062, 0.025, 0.035.
- Cross-sectional view: 0.0, 20°, 0.0, 70°.

Technical drawing of a 16-pin package showing top, side, and detail views with dimensions.

Top View Dimensions:

- Overall width: .830 MAX.
- Pin pitch (between pins 1 and 8): .100
- Pin width (between pins 1 and 8): .020 MIN.
- Pin width (between pins 9 and 16): .014 MIN.
- Pin width (between pins 9 and 16): .023 MAX.
- Pin width (between pins 9 and 16): .045
- Pin width (between pins 9 and 16): .050
- Pin width (between pins 9 and 16): .170 MAX.
- Pin width (between pins 9 and 16): .110 MIN.
- Pin width (between pins 9 and 16): .300 NOM.

Side View Dimensions:

- Overall height: .290 MAX.
- Pin height: .070 NOM.

Detail View:

- Shows a close-up of the pin and lead connection.
- Indicates that leads may be brazed to the side or bottom of the package.

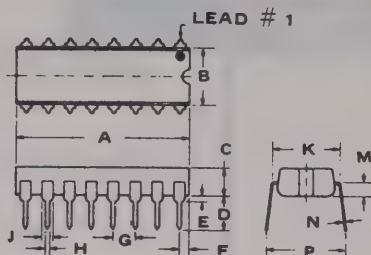
Figure 1: Dimensions of the 14-pin DIP package. The figure includes three views: a top view, a side view, and a front view. The top view shows a rectangular package with 14 pins, with dimensions 1.200 TYP. for the overall width and 0.280 for the pin pitch. The side view shows the package height with dimensions .550 NOM. for the body and .010 NOM. for the pin height. The front view shows the pin details with dimensions .020 MIN. for the pin thickness, .018 TYP. for the pin width, .008 for the pin-to-body gap, .014 for the pin-to-body gap, .033 MIN. for the pin-to-body gap, .095 MAX. for the pin-to-body gap, .125 MIN. for the pin-to-body gap, .200 MAX. for the pin-to-body gap, and .010 for the pin-to-body gap.

	A	B	C	D	E	F	G	H	J
ML84	.775 .825	.290 .310	.472 REF	.040	.100 MIN	.200 REF	.030 .040	.070 TYP	.054 TYP
ML84a	.720 .820	.300 .320	.450 .500	.020 .050	.100 .400				

SECTION 10. OUTLINE DRAWINGS

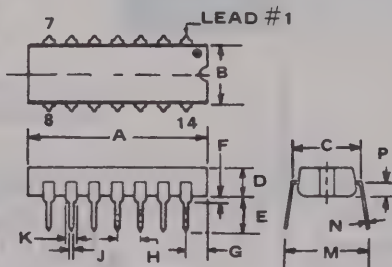
IN DRAWING NUMBER
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ML85



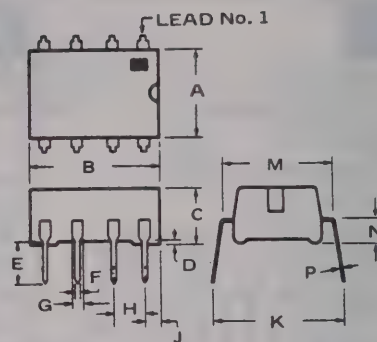
	A	B	C	D	E	F	G	H	J	K	M	N	P
ML85	.745	.245	.115	.135	.015	.065	.090	.015	.044	.290	.057	.010	.325
	.755	.252	.125	.155	.035	.085	.110	.021	.052	.310	.068	.015	.375
ML85a	.740	.240	.145	.135	.015		.100	.015	.023	.290		.008	.325
	.770	.280	MAX	MIN	MIN			.023	.036	.310		.015	.375

ML86



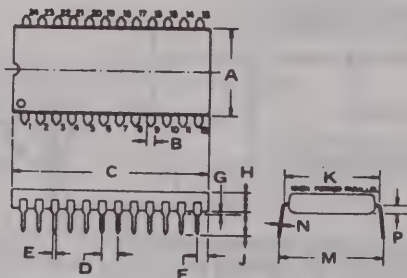
	A	B	C	D	E	F	G	H	J	K	M	N	P
ML86	.745	.245	.290	.115	.135	.015	.065	.090	.015	.044	.325	.010	.057
	.755	.252	.310	.125	.165	.035	.085	.110	.021	.052	.375	.015	.068
ML86a	.740	.240	.290	.145	.135	.015		.100	.015	.040	.325	.008	
	.770	.280	.310		MIN	MIN			.023	.050	.375	.015	
ML86b	.697	.256	.300			.020		.100	.020		.299	.008	
	MAX	MAX	TYP			MIN		TYP	TYP		.394	.014	

ML87



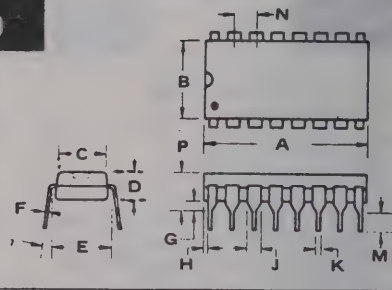
	A	B	C	D	E	F	G	H	J	K	M	N	P
ML87	.250	.365	.155	.010		.015	.044	.090	.025	.325	.290	.100	.010
	MAX	.375	.165	MIN		.020	.050	.110	.045	.375	.310	MAX	
ML87a	.245	.365	.155	.010	.120	.015	.044	.090	.025	.325	.290	.075	.010
	.252	.375	.165	.020	.135	.021	.052	.110	.045	.375	.310	.085	.015

ML88



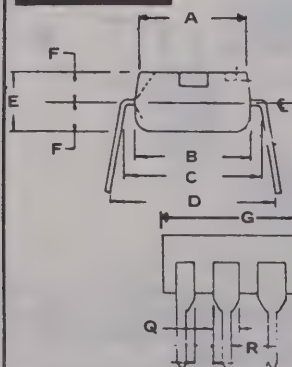
	A	B	C	D	E	F	G	H	J	K	M	N	P	REMARKS
ML88	.540	.040	1.24	.090	.015	.065	.030	.115		.600	.645	.015	.045	
	.560	.050	1.26	.110	.020	.085	.060	.125			.660	MAX	.055	
ML88a	.527		1.25	.090	.017		.020	.208	.120	.590		.007		INDEX NOTCH ONLY
				.110	.019							.014		

ML89



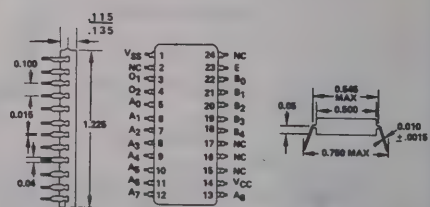
	A	B	C	D	E	F	G	H	J	K	M	N	P
ML89	.760	.250	.235	.130	.300	.010	.040	.020	.060	.020	.130	.082	.180
	.765											.108	MAX
ML89a	.745	.245		.115	.290	.010	.015	.020	.044	.015	.120	.090	.130
	.765	.252		.125	.310	.015	.035	.030	.064	.021	.135	.110	.160
ML89b	.750	.235		.180	.325	.008	.020			.015	.125	.090	.200
	.880	.275			MAX	.015				.023	MIN	.110	MAX

ML90



	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R
ML90	.235	.250	.300	.360	.130	.065		.070	.030	.150			.060	.060	.020
ML90a	.244	.244	.300	MAX	.179		.377		.019		.199	.100	.050	.007	.014
									MIN						

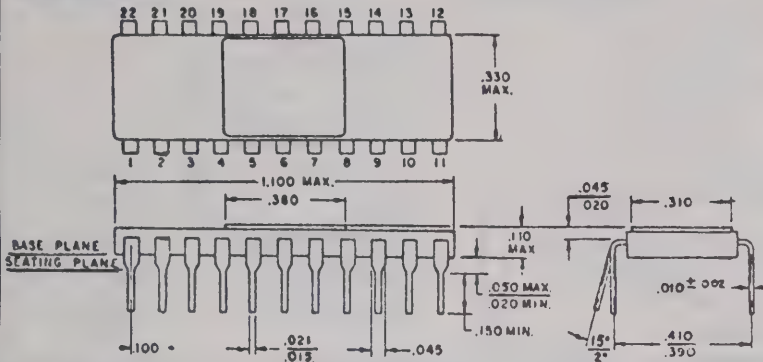
ML91



SECTION 10. OUTLINE DRAWINGS

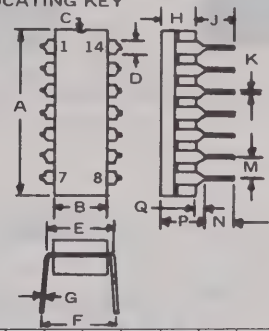
IN DRAWING NUMBER
SEQUENCE

ML92



ML93

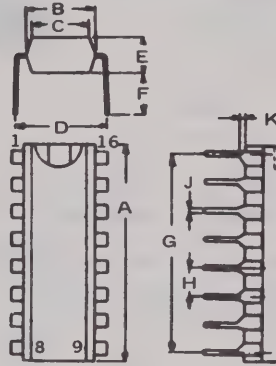
PIN LOCATING KEY



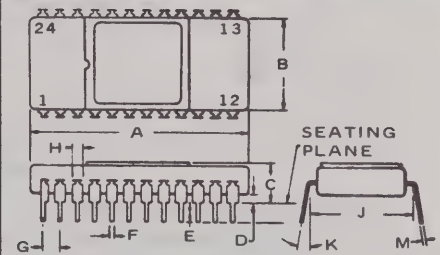
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q
ML93	.750	.245	.025	.057	.290	.350	.009	.160	.150	.015	.090	.140	.200	.020		
ML93a	.755	.275		.065	.310	.400	.012	MAX	MAX	.018	.110	MAX	MAX	.055		
ML93b	.765	.250		.060				.130		.020	.092	.106			.040	
ML93c	MAX															
ML93d	.755	.280		.070	.290	.325	.008	.145	.145	.015	.090	.125	.165	.020		
ML93e	.765	MAX		MAX	.315	.395	.014	.175	.205	.023	.110	.185	.215	.040		

ML94

	A	B	C	D	E	F	G	H	I	J	K
ML94	.787	.255	.210	.330	.129	.160	.700	.090	.017	.030	
ML94a	MAX	MAX						.110			
ML94b	.755	.244			.179	.120		.090	.007	.019	
ML94c	.654	.255		.299	.177	.137		.090	.015	.019	
ML94d	TYP.	MAX		.393	MAX	MIN		.110	.023	MIN	
ML94e	.740	.252		.330	.126	.125		.100	.018	.025	
ML94f	MAX			.370	MAX	MAX					
ML94g	.870	.240		.290	.180	.140	.700	.100	.015	.020	
ML94h	MAX	.260		.310	MAX	MIN	TP	TP	.021	MIN	

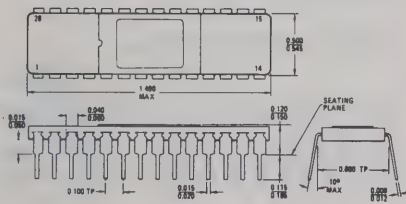


ML95

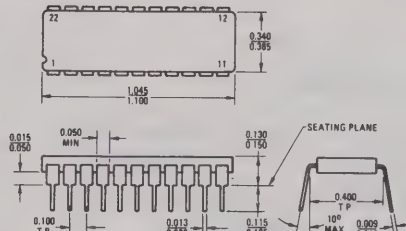


	A	B	C	D	E	F	G	H	I	J	K	L	M
ML95	1.10	.500	.120	.020	.115	.015	.100	.040	.590	10°	.068		
ML95a	1.29	.545	.180	.050	.165	.020		.060	.610	MAX	.011		
ML95b	1.14	.500	.120	.020	.115	.015	.100	.040	.590	10°	.011		
ML95c	1.29	.560	.180	.050	.165	.020		.060	.610	MAX	.012		

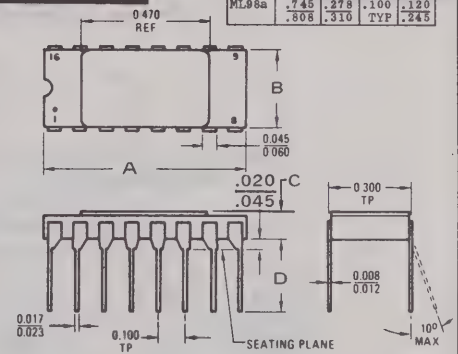
ML96



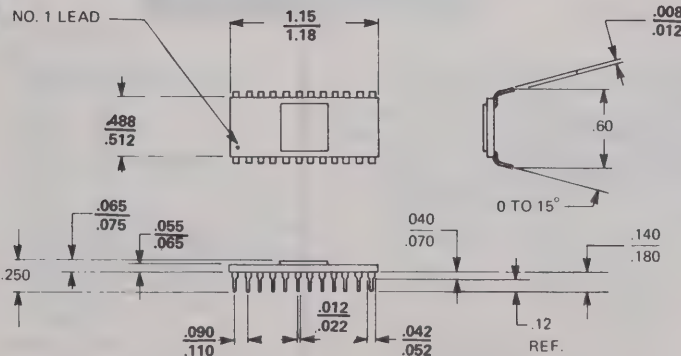
ML97



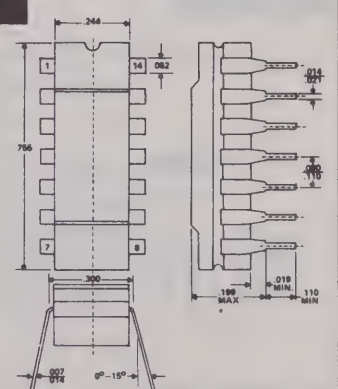
ML98



ML99



ML100



IN DRAWING NUMBER
SEQUENCE

Technical drawing of a mechanical part, likely a mold or die component, showing three views: top, side, and front.

Top View Dimensions:

- Overall width: 1.990
- Overall height: 2.020
- Central rectangular feature: 1.800 x 1.000
- Top edge features: 18 (left), 1 (right)
- Bottom edge features: 19 (left), 36 (right)
- Bottom edge spacing: 480, 500, 140, 160
- Right side radius: .025 R

Side View Dimensions:

- Top edge thickness: .040
- Bottom edge thickness: .060
- Bottom edge features: 125, .090, .110
- Bottom edge spacing: .040 TYP., .045
- Bottom edge thickness: .016, .020 TYP.

Front View Dimensions:

- Overall width: 590
- Overall height: .610
- Top edge thickness: .480, .500
- Bottom edge thickness: .009
- Bottom edge spacing: .011
- Bottom edge thickness: .675 MAX.

Technical drawing of a rectangular component, likely a connector or interface plate, showing dimensions and callouts.

Top View Dimensions:

- Overall width: .745
- Inner width: .460
- Inner width (alternative): .470
- Overall height: .278
- Inner height: .295
- Radius: .020 R
- Dimension: .030
- Dimension: .015
- Dimension: .035
- Dimension: .045
- Dimension: .065

Bottom View Dimensions:

- Overall height: .157
- Inner height: .180
- Dimension: .227
- Dimension: .247
- Dimension: .090 TYP.
- Dimension: .110
- Dimension: .027
- Dimension: .037
- Dimension: .016
- Dimension: .024
- Dimension: .025 MIN.
- SEATING PLANE

Side View Dimensions:

- Overall width: .290
- Inner width: .310
- Inner width: .271
- Inner width: .285
- Dimension: .025 MAX.
- Dimension: .009
- Dimension: .011
- Overall width: .375 NOM.

Labels:

- STANDOFF WIDTH

Figure 1: Dimensions of the 12-pin connector. The diagram shows three views: a top view, a side view, and a perspective view. The top view shows a rectangular connector with 12 pins, labeled 1 through 12. The width is .492 inches. The side view shows the profile of the connector with a height of .110 inches. The perspective view shows the connector from an angle, with dimensions .090 inches for the top width, .090 inches for the bottom width, and .020 inches for the height. The pins are spaced .018 inches apart. The top view also shows a dimension of 1.226 inches for the length of the connector body.

Technical drawing of a mechanical part, showing three views: top, front, and side. Dimensions are provided in millimeters (mm) and inches (in).

Top View Dimensions:

- Overall Length: 830 (21.08) mm, 760 (19.80) mm
- Overall Width: 310 (7.87) mm, 290 (7.11) mm
- Internal Width: 16 mm

Front View Dimensions:

- Overall Length: 470 (11.94) mm, 420 (10.67) mm
- Overall Width: 085 (1.85) mm, 020 (0.51) mm
- Slot Width: 021 (0.53) mm, 015 (0.38) mm
- Slot Spacing: 060 (1.52) mm, 045 (1.14) mm
- Slot Depth: 110 (2.79) mm, 090 (2.29) mm

Side View Dimensions:

- Overall Height: 080 (1.52) mm, 030 (0.76) mm
- Overall Width: 120 (3.05) mm, 080 (2.03) mm
- Internal Width: 012 (0.31) mm, 008 (0.20) mm
- Internal Height: 140 (3.56) mm, 100 (2.54) mm
- Overall Length: 320 (8.13) mm, 290 (7.37) mm

Technical drawing of a mechanical part, likely a mold or die, showing front, side, and top views with dimensions.

Front View (Top): Shows a rectangular base with a central slot. Dimensions include a total width of 200, a central slot width of 70, and a base width of 70. The height of the base is 70. The total height of the part is 180. The top view shows a central slot with a width of 70 and a total width of 200.

Side View (Middle): Shows the profile of the part. Dimensions include a total width of 200, a central slot width of 70, and a base width of 70. The height of the base is 70. The total height of the part is 180. The side view shows a central slot with a width of 70 and a total width of 200.

Top View (Bottom): Shows the top of the part. Dimensions include a total width of 200, a central slot width of 70, and a base width of 70. The height of the base is 70. The top view shows a central slot with a width of 70 and a total width of 200.

Bottom View (Right): Shows the bottom of the part. Dimensions include a total width of 200, a central slot width of 70, and a base width of 70. The height of the base is 70. The bottom view shows a central slot with a width of 70 and a total width of 200.

IN DRAWING NUMBER
SEQUENCE

[illegible]

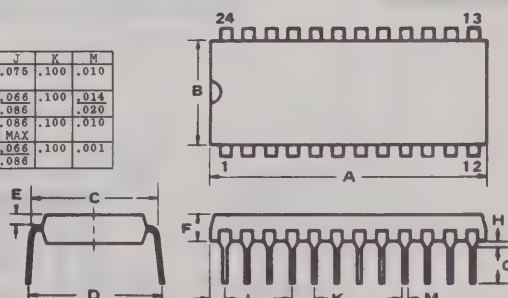
Figure 1: Dimensions of a 16-pin package. The diagram shows a side view of a package with 16 pins. Dimensions include pin pitch (.019 TYP), pin diameter (.010 TYP), pin length (.040 MIN), pin spacing (.090 MIN), and package width (.020 MIN). A detail view shows the pin profile with dimensions: .290, .235, .270, .230, .110 MAX, .010 TYP, and .300.

Figure 1 shows the dimensions of the 16-pin DIP package. The top view indicates a square package with a width of 7.62 mm and a pin pitch of 2.54 mm. The side view shows a package height of 6.35 mm max, a pin height of 2.71 mm, and a pin diameter of 0.08 mm. The bottom view shows the pin diameter (0.08 mm) and the standoff height (0.13 mm).

Orthographic projections of a rectangular plate with pins. The side view shows a plate 2.30 inches wide and .175 inches thick, with 21 pins on .10 inch centers and .15 inch end offsets. The end view shows a plate 1.60 inches wide and .17 inches thick.

	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R
ML116	.400	.245	.080	.085	.300	.300	.075	.125	.128	.065	.020	.100	.040	.016	.001
	MAX	.255			.320	.350	MAX	MIN	.132	MAX				.020	.010
ML116a	.380	.245	.065	.065	.290	.290	.025	.100	.125		.020	.090		.015	.008
	.400	.255	.075	.075	.310	.410		.150	.155		MTN	.110		.023	.012

	A	B	C	D	E	F	G	H	J	K	M
ML118	1.26	.640 MAX	.610	.624	.075	.160	.126	.030	.078	.100	.010
ML118a	1.22		.600	.600	.055	.125	.137	.035	.066	.100	.014
				.649	.062	.200	.150	.047	.086		.020
ML118b	1.25		.600	.625		.181	.114	.019	.086	.100	.010
							.125	.035			
ML118c	1.25	.543 MAX	.600	.055	.125	.137	.035	.066	.100	.001	
	1.25	.569	.649	.062	.200	.150	.047	.086			



IN DRAWING NUMBER
SEQUENCE

[illegible]

Technical drawing of the ML 122 component, showing top and side views with dimensions.

Top View Dimensions:

- Overall width: .320
- Overall height: .275
- Central rectangular area width: .820
- Central rectangular area height: .031
- Left side cutout depth: .070
- Pin pitch (center-to-center): .100 TYP.
- Pin width: .017
- Pin height: .160 TYP.

Side View Dimensions:

- Pin height: .325
- Pin thickness: .010
- Base thickness: .355

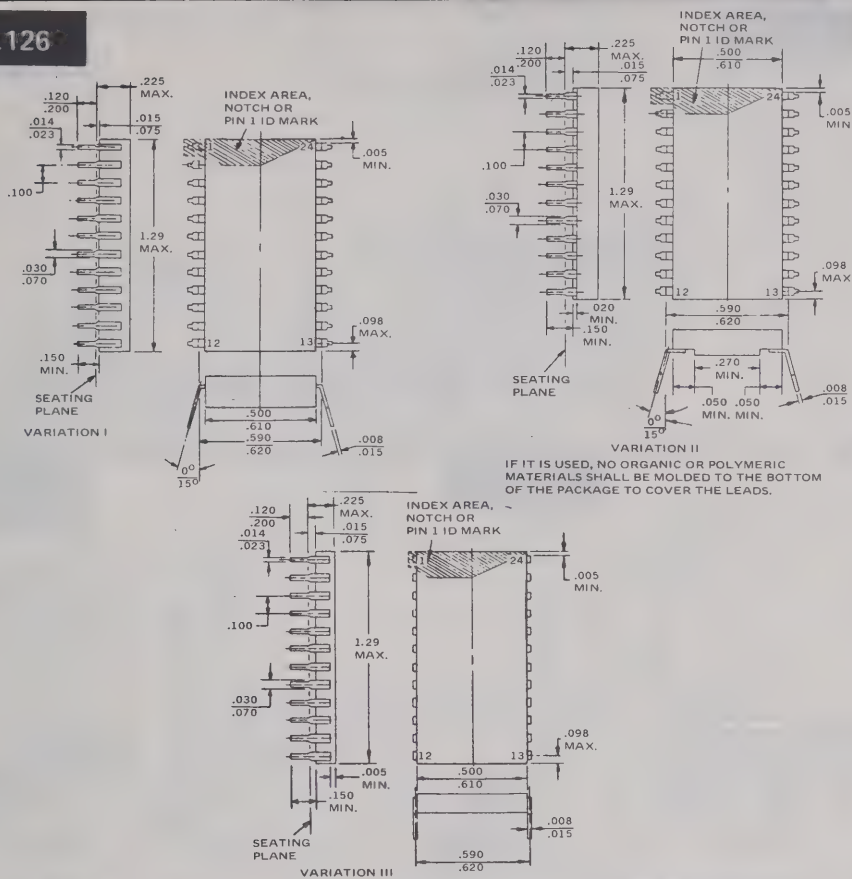
Technical drawing of a 10-hole punch die. The top view shows a rectangular block with 10 circular holes. The overall width is .783 MAX. The distance between the centers of the first and last holes is .200 MAX. The hole diameter is .020 MIN. The hole depth is .030. The distance from the left edge to the center of the first hole is .104 MAX. The distance from the center of the last hole to the right edge is .150 MAX. The distance from the left edge to the center of the first hole is .044 MAX. The distance from the center of the last hole to the right edge is .062 MAX. The distance from the left edge to the center of the first hole is .100 MAX. The distance from the center of the last hole to the right edge is .022 MAX. The side view shows the die's profile with a top width of .324 MAX. The distance from the left edge to the center of the first hole is .240 MAX. The distance from the center of the last hole to the right edge is .295 MAX. The hole depth is .008 MAX. The distance from the left edge to the center of the first hole is .014 MAX. The distance from the center of the last hole to the right edge is .290 MAX. The distance from the left edge to the center of the first hole is .274 MAX.

[illegible]

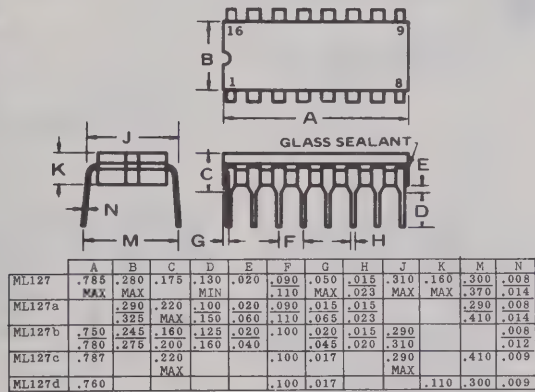
SECTION 10. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

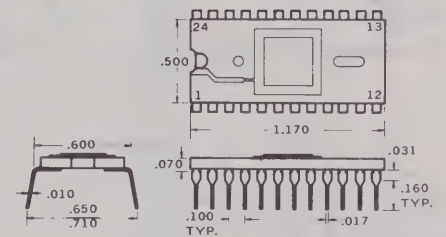
ML126



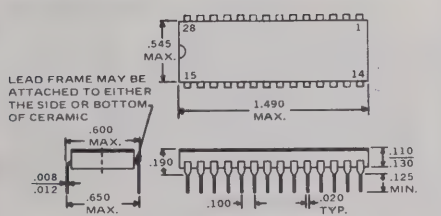
ML127



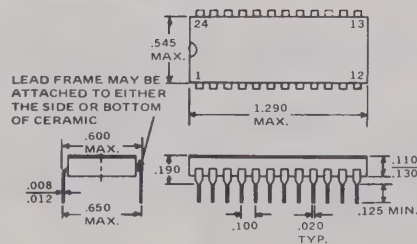
ML128



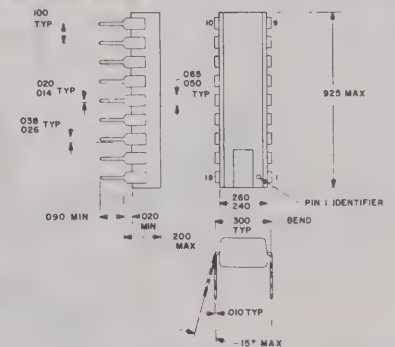
ML129



ML130



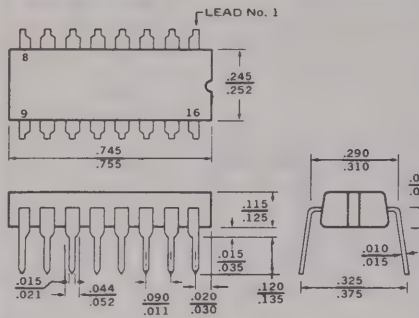
ML131



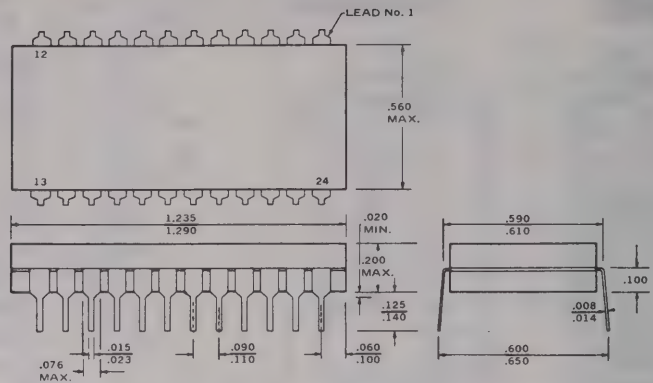
SECTION 10. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

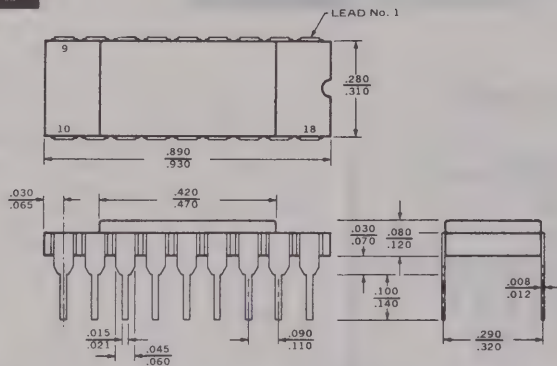
ML 132



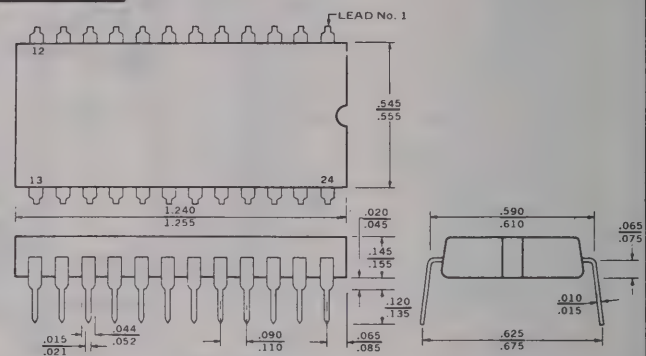
ML 133



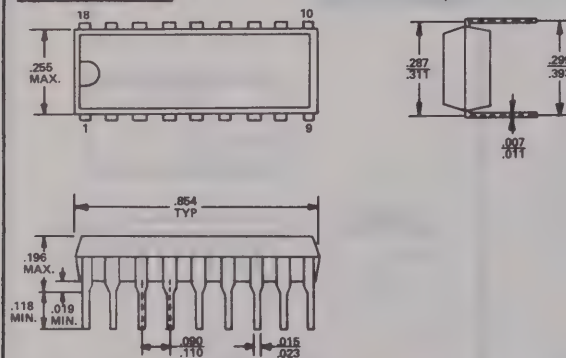
ML 134



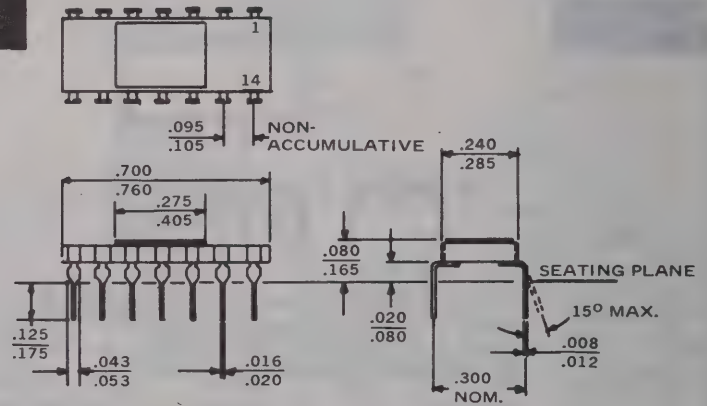
ML 135



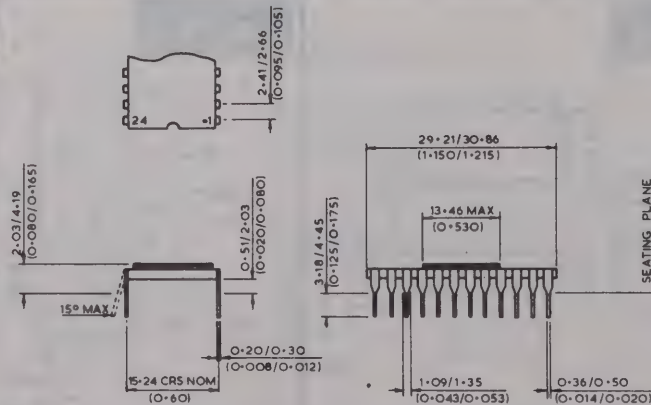
ML 136



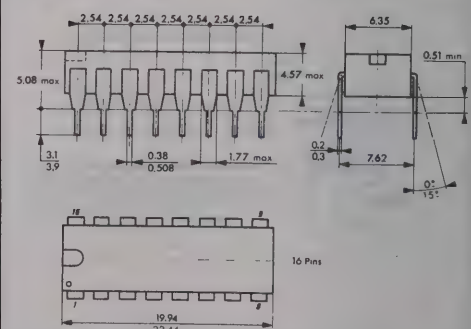
ML 137



ML 138



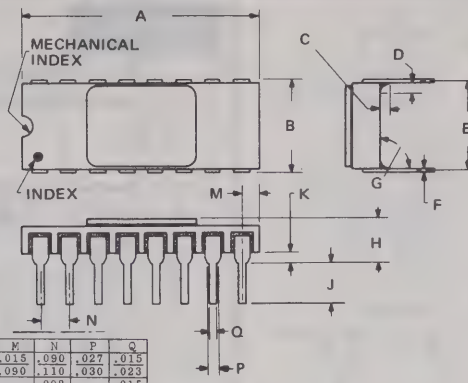
ML 139



SECTION 10. OUTLINE DRAWINGS

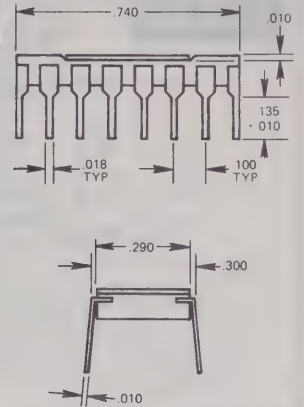
IN DRAWING NUMBER
SEQUENCE

ML140

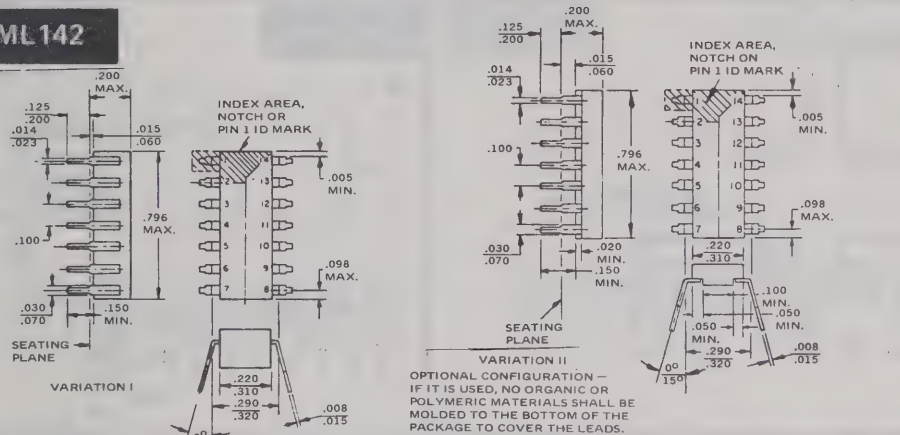


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
ML140	.830 MAX	.295 MAX	.020 MAX	.040 MAX	.290 MAX	.008 MAX	.90 MAX	.200 MAX	.125 MAX	.020 MIN	.015 MIN	.090 MIN	.027 MIN	.015 MIN	.023 MIN		
ML140a	.820 MAX	.320 MAX			.300 MAX			.180 MAX	.130 MAX	.018 MAX		.092 MAX	.018 MAX				
ML140b	.790 MAX	.285 MAX			.280 MAX	.008 MAX		.170 MAX	.140 MAX	.020 MIN	.032 MIN	.100 MIN	.030 MIN	.015 MIN	.021 MIN		
	.820 MAX	.315 MAX			.300 MAX	.014 MAX		.170 MAX	.140 MAX	.020 MIN	.032 MIN	.100 MIN	.030 MIN	.015 MIN	.021 MIN		

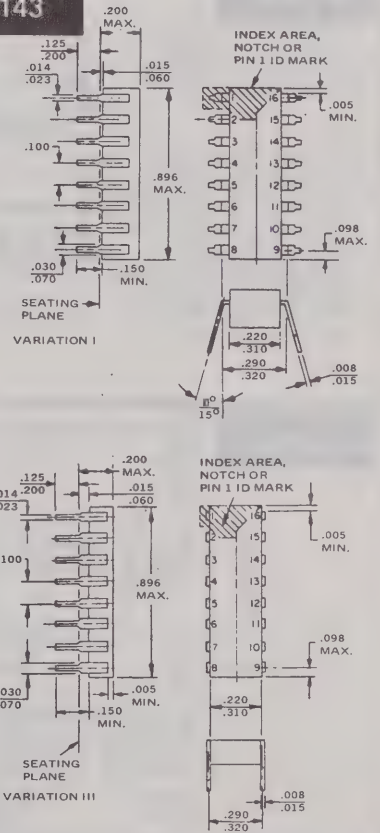
ML141



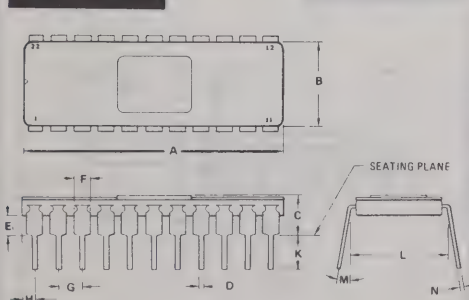
ML142



ML143

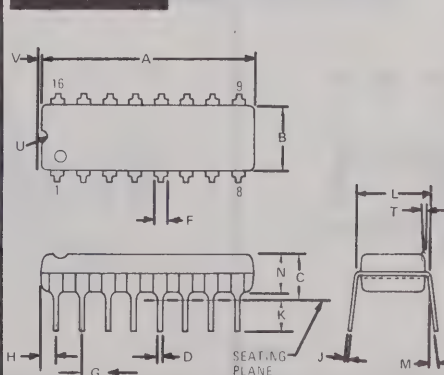


ML144



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	26.54	27.94	1.045	1.100
B	9.14	9.40	0.360	0.370
C	3.30	4.06	0.130	0.160
D	0.38	0.53	0.015	0.021
F	1.02	1.27	0.040	0.050
G	2.54 BSC		0.100 BSC	
H	0.51	1.27	0.020	0.050
J	0.23	0.30	0.009	0.012
K	2.92	3.68	0.115	0.145
L	9.91	10.67	0.390	0.420
M	3°	15°	3°	15°
N	0.51	1.27	0.020	0.050

ML145



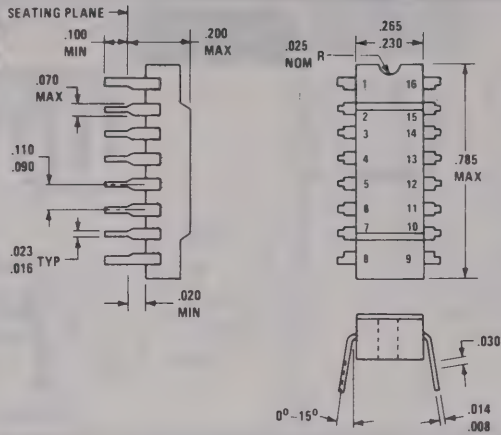
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	20.70	21.21	.815	.835
B	6.09	6.60	.240	.260
C	4.07	4.57	.160	.180
D	38	51	.015	.020
E	1.14	1.40	.045	.055
F	2.54 BSC		0.100 BSC	
G	1.32	1.83	.052	.072
H	20	30	.008	.012
I	2.92	3.43	.115	.135
J	7.37	7.87	.290	.310
K	10°			
L	64	89	.025	.035
M	70 TYP			
N	64 RAD		.025 RAD	
O	13	38	.005	.015

NOTES
1. DIM "L" TO CENTER OF LEADS WHEN FORMED PARALLEL

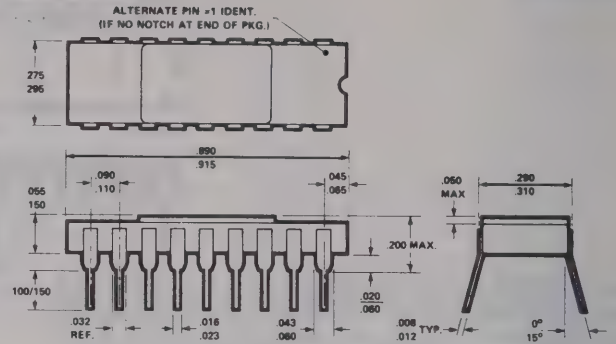
SECTION 10. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

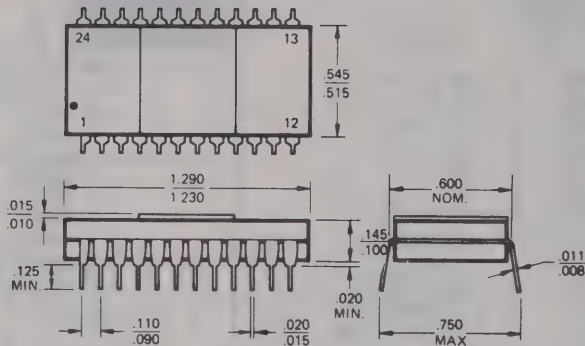
ML146



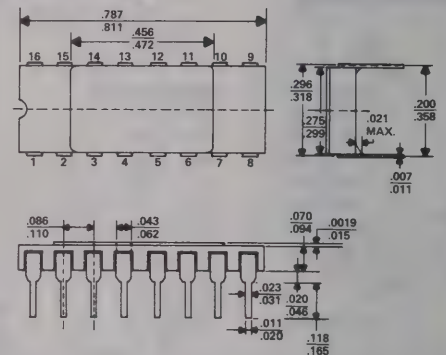
ML147



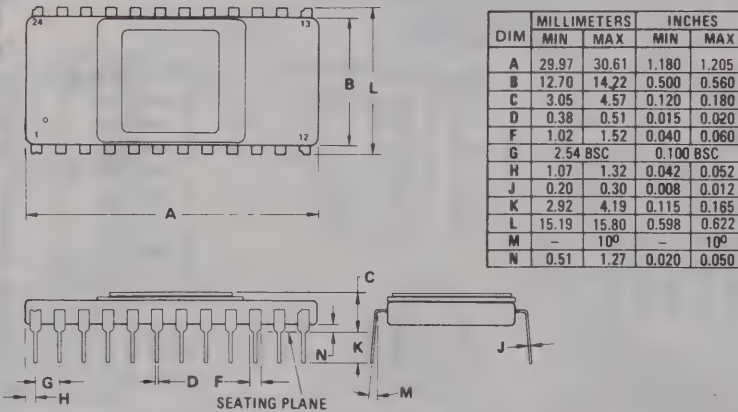
ML148



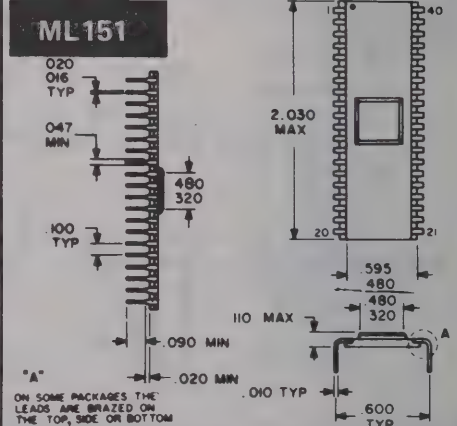
ML149



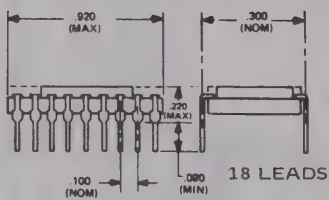
ML150



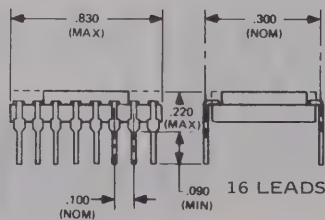
ML151



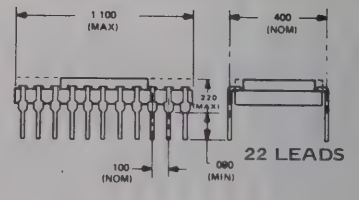
ML152



ML153



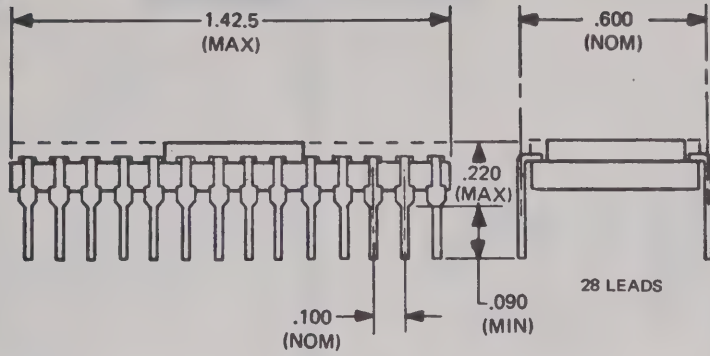
ML154



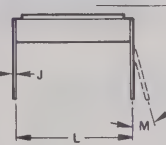
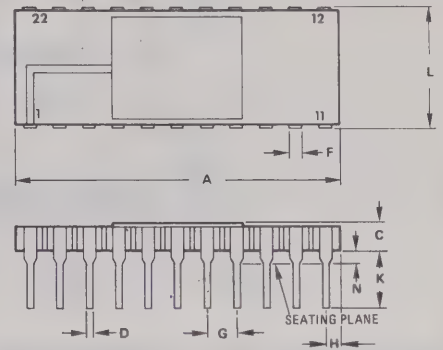
SECTION 10. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

ML155



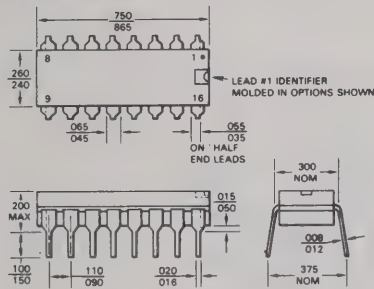
ML156



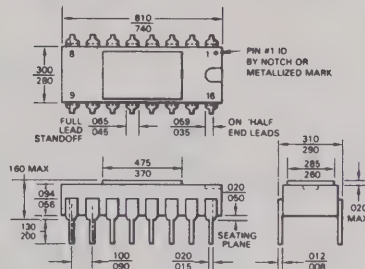
- NOTES:
- LEADS WITHIN 0.13 mm (0.005) RADIUS OF TRUE POSITION AT MAXIMUM MATERIAL CONDITION.
 - DIMENSION "L" TO CENTER OF LEADS WHEN FORMED PARALLEL.

DIM	MIN	MAX	MIN	MAX
A	27.05	27.94	1.065	1.100
C	2.16	3.68	0.085	0.145
D	0.43	0.58	0.017	0.023
F	1.02 REF		0.040 REF	
G	2.54 BSC		0.100 BSC	
H	0.76	1.78	0.030	0.070
J	0.20	0.30	0.008	0.012
K	3.18	4.45	0.125	0.175
L	9.65	10.67	0.380	0.420
M	-	70	-	70
N	0.64	1.27	0.025	0.050

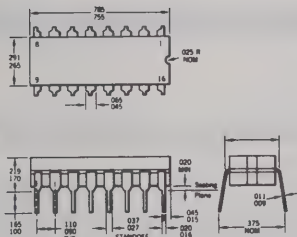
ML157



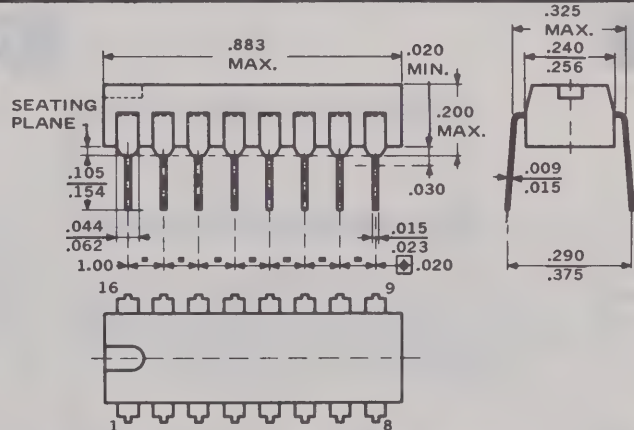
ML158



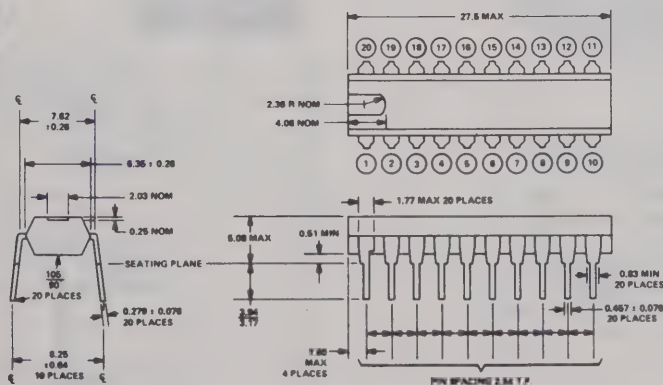
ML159



ML160



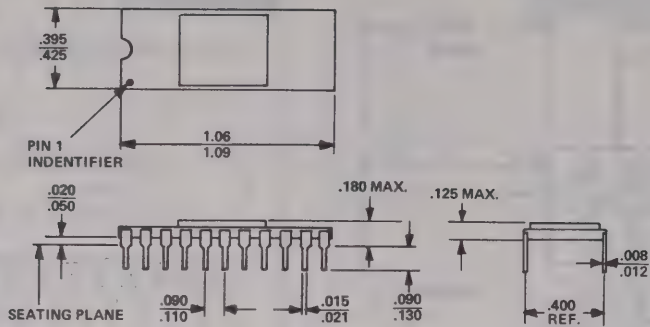
ML161



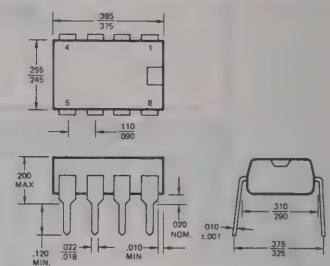
SECTION 9. LOGIC/BLOCK DRAWINGS

IN DRAWING NUMBER
SEQUENCE

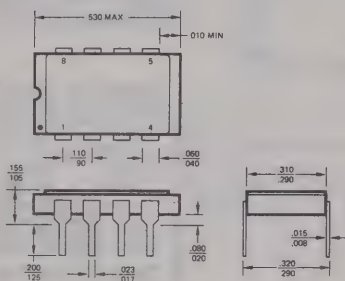
ML 162



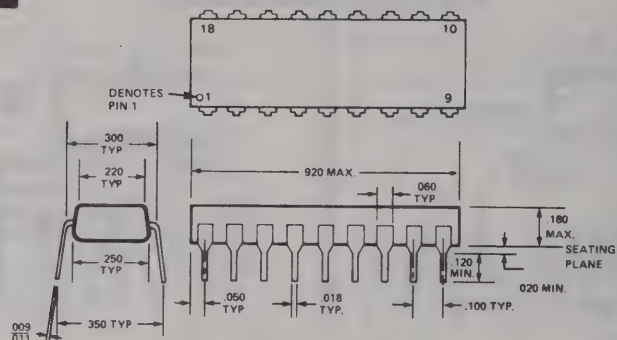
ML 163



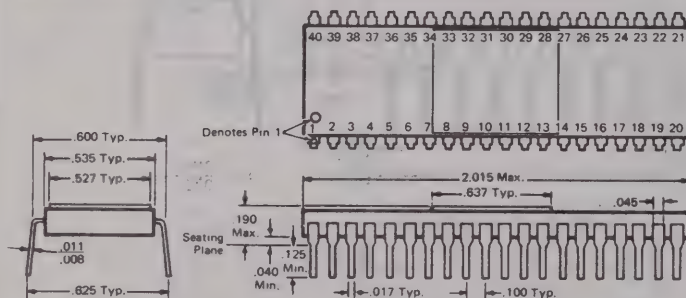
ML 164



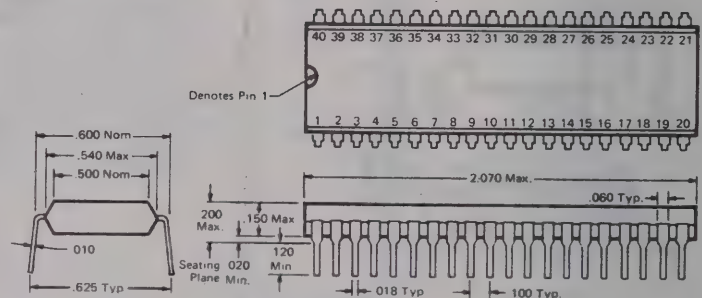
ML 165



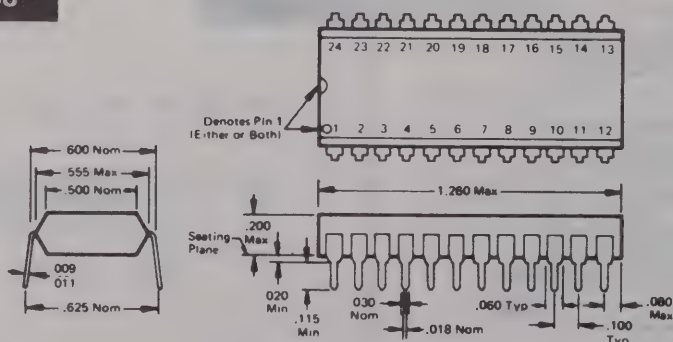
ML 166



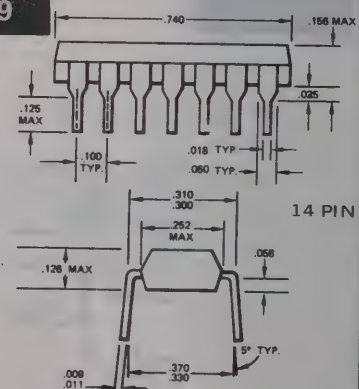
ML 167



ML 168

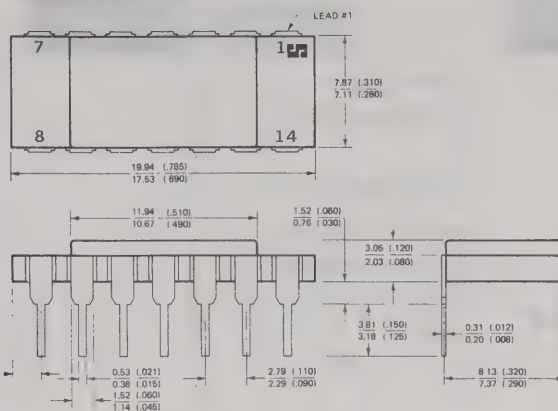
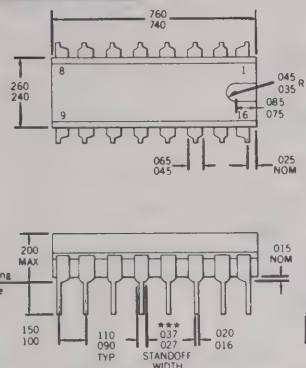


ML 169

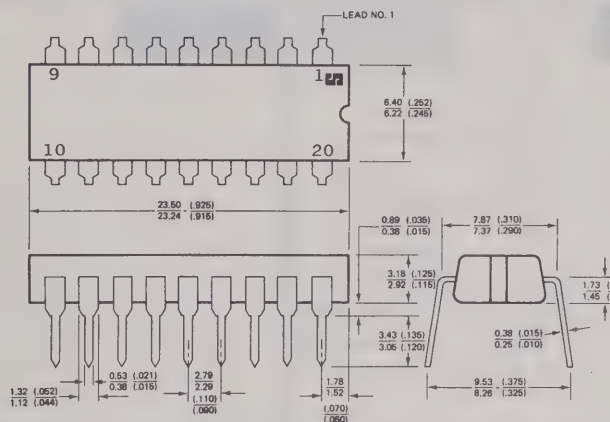


IN DRAWING NUMBER
SEQUENCE

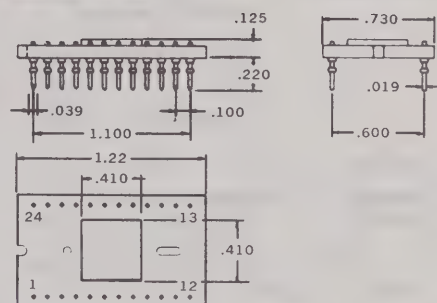
ML171



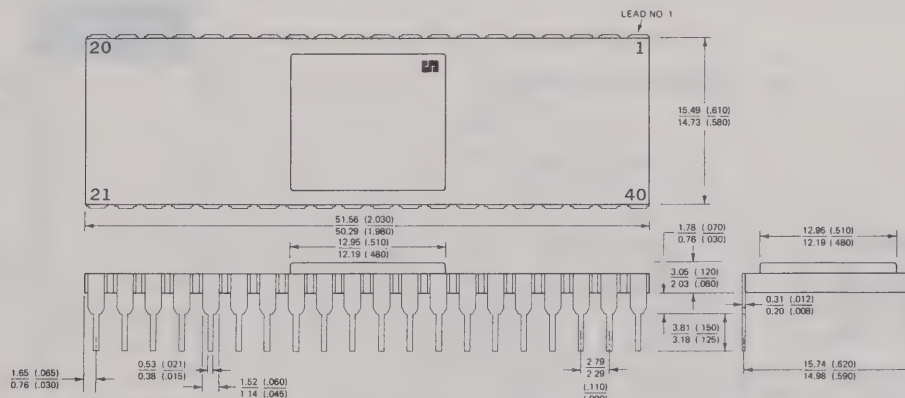
ML172



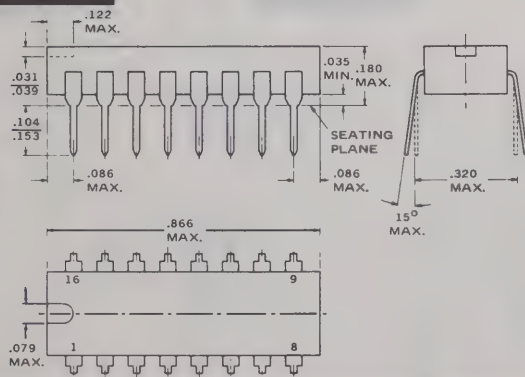
ML173



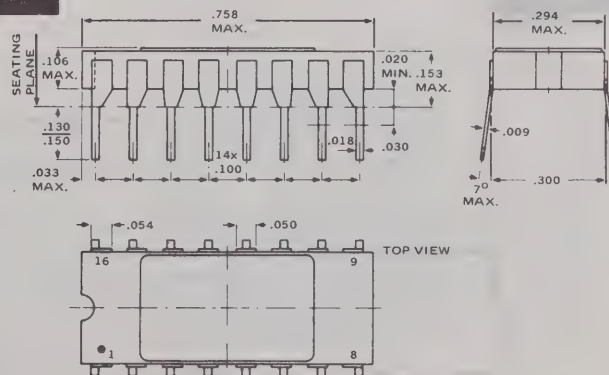
ML174



ML175



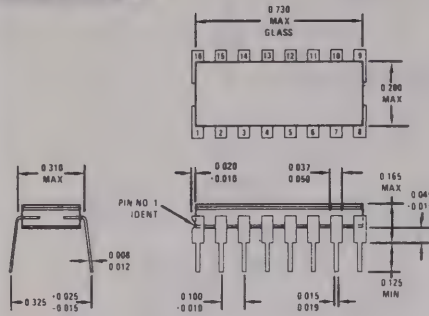
ML176



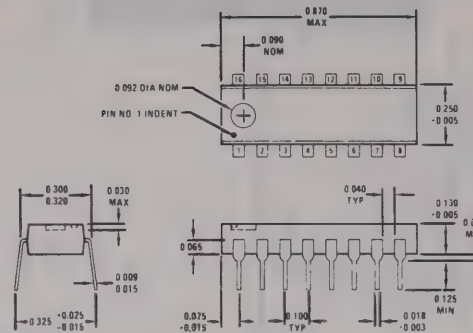
SECTION 10. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

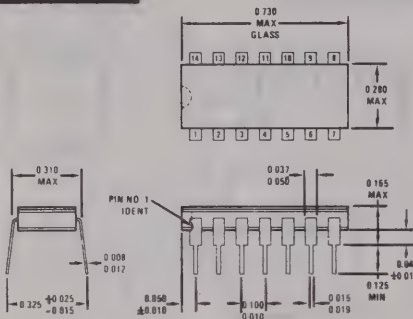
ML177



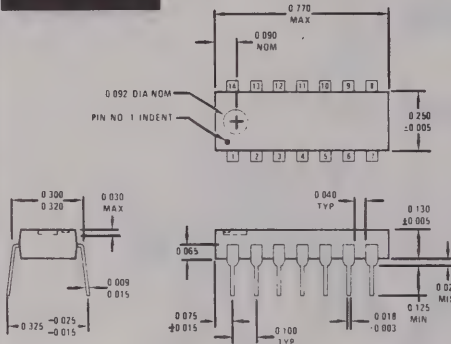
ML178



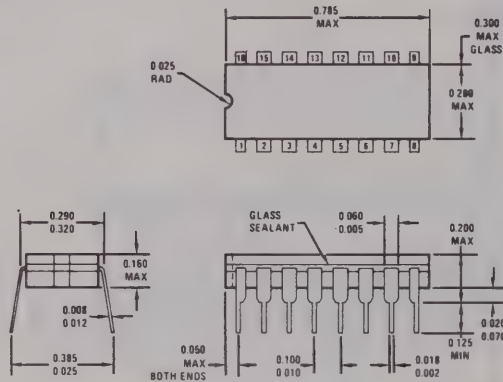
ML179



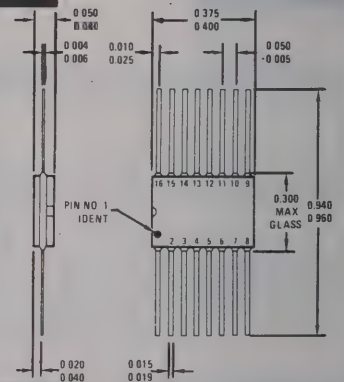
ML180



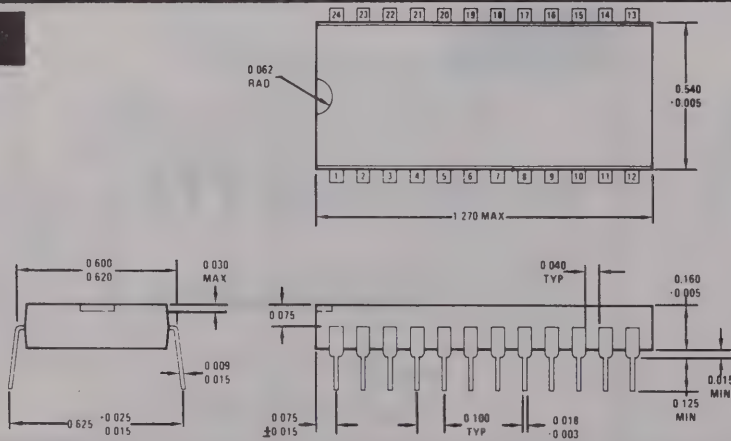
ML181



ML182



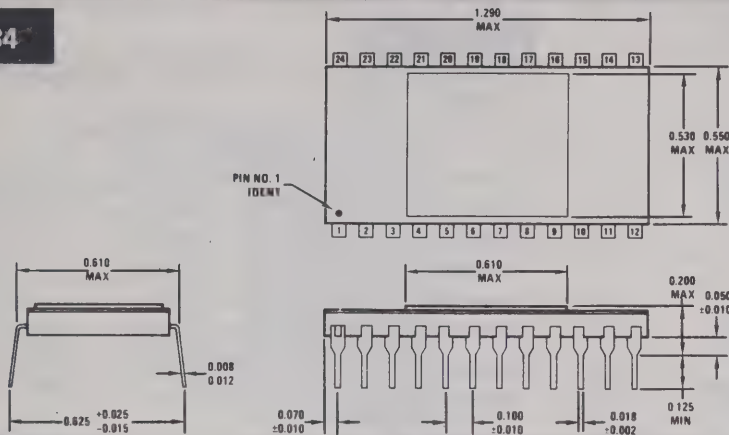
ML183



SECTION 10. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

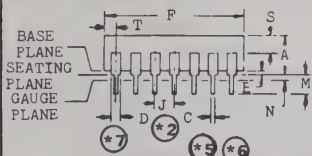
ML184



MO001

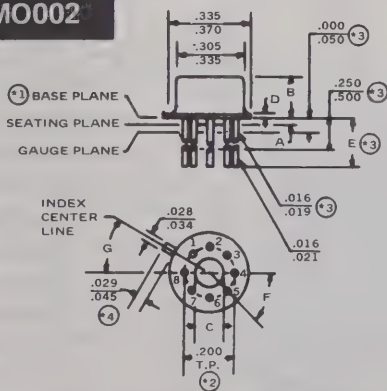
NOTES:

1. Refer to Rules for Dimensioning Axial Lead Product Outlines.
2. Leads within .005" radius of True Position (TP) at gauge plane with maximum material condition and unit installed.
3. K applies in zone N when unit installed.
4. P applies to spread loads prior to installation.
5. Q is the maximum quantity of lead positions.
6. R is the quantity of allowable missing leads.
7. D applies to all leads except the four end leads which have one half the normal standoff width (D min = .025).



	A	B	C	D	E	F	G	H	J	K	M	N	P	Q	R	S	T	NOTES
MO001AA	.200	.020	.015	.030	.008	.660	.325	.220	.100	.300	.100	.000	0	14	0			2,3,4,5,6
	MAX	MIN	.023	.070	.015	.785	MAX	.280	T.P.	T.P.	MIN	.030	15					
MO001AB	.155	.020	.014	.050	.008	.745	.300	.240	.100	.300	.125	.000	0	14	0	.040	.065	2,3,4,5,6
	.200	.050	.020	.065	.012	.770	.325	.260	T.P.	T.P.	.150	.030	15			.075	.090	
MO001AC	.155	.020	.014	.035	.008	.745	.300	.240	.100	.300	.125	.000	0	16	0	.040	.015	2,3,4,5,6
	.200	.050	.020	.065	.012	.785	.325	.260	T.P.	T.P.	.150	.030	15			.075	.060	
MO001AD	.120	.020	.014	.050	.008	.745	.300	.240	.100	.300	.125	.000	0	14	0	.050	.015	2,3,4,5,6
	.160	.065	.020	.065	.012	.770	.325	.260	T.P.	T.P.	.150	.030	15			.085	.090	
MO001AE	.120	.020	.014	.035	.008	.745	.300	.240	.100	.300	.125	.000	0	16	0	.050	.015	2,3,4,5,6
	.160	.065	.020	.065	.012	.785	.325	.260	T.P.	T.P.	.150	.030	15			.085	.060	
MO001AF	.165	.015	.015	.045	.009	.750	.295	.245	.100	.300	.120	.000	2	14	0	.050	.050	2,3,4,5,6
	.210	.045	.020	.070	.011	.795	.325	.300	T.P.	T.P.	.160	.030	15			.080	.110	
MO001AG	.165	.015	.015	.045	.009	.750	.295	.245	.100	.300	.120	.000	2	16	0	.050	.010	2,3,4,5,6,7
	.210	.045	.020	.070	.011	.795	.320	.300	T.P.	T.P.	.160	.030	15			.080	.060	

MO002



NOTES:

1. Refer to Rules for Dimensioning Axial Lead Product Outlines.
2. Leads at gauge plane within .007" radius of True Positions (TP) with maximum material condition.
3. Dim. .016" Min. and .019" Max. applies between .000" Min. and .050 Max. and .250" Min. and .500" Max. Dim. .016" Min. and .021" Max. applies between .250" Min. and .500" Max. and .500" from seating plane. Diameter is uncontrolled in .000" Min. and .050" Max. and .500".
4. Measured from Max. .370".

	A	B	C	D	E	P	NO. OF LEADS	NO. OF LEADS MISSING	G
MO002AA	.010	.240	.140	.040	.500	45°	8	1	22.5° TP
MO002AB	.040	.260	.160	MAX	MIN	TP	8	3	0° TP
MO002AC	0	.240	0	.040	.500	30°	12	1	15° TP
MO002AD	0	.260	0	MAX	MIN	TP	10	1	18° TP
MO002AE	0	.240	0	.040	.500	60°	6	1	0° TP
MO002AF	0	.260	0	MAX	MIN	TP	8	3	0° TP
MO002AG	0	.240	0	.040	.500	45°	8	3	0° TP
MO002AH	0	.165	0	MAX	MIN	TP	8	3	0° TP
MO002AI	0	.140	0	.040	.500	45°	8	3	0° TP
MO002AJ	0	.160	0	MAX	MIN	TP	8	3	0° TP
MO002AK	.010	.165	.140	.040	.500	45°	8	3	0° TP
MO002AL	.040	.185	.160	MAX	MIN	TP	8	3	0° TP
	.050	.185	.160	.040	.562	TP			

IN DRAWING NUMBER
SEQUENCE

Technical drawing of a base and seating plane for a 1200V switchgear. The drawing shows a cross-section of the base with dimensions in inches. Key dimensions include: overall width of 600 inches, base thickness of 1.000 inch, and a base height of 150 inches. The base is divided into three sections: a central section (1) and two side sections (2 and 3). The central section (1) has a width of 300 inches and a height of 200 inches. The side sections (2 and 3) have a width of 150 inches and a height of 300 inches. The base is supported by four legs (4) with a diameter of 0.03 inches. The base is also equipped with a base and seating plane (1) with a diameter of 0.03 inches. The drawing includes a note: "OPTIONAL END CONFIG. TYPICAL BOTH ENDS".

1. Refer to Rules for Dimensioning Peripheral Lead Outlines.
2. Leads with .005" radius of True Position (TP) at maximum material condition.
3. E is the maximum quantity of lead positions.
4. Z and Z₁ determine a zone within irregularities lie.

	A	B	C	D	E	NOTES
MO004AA	.015 .019	.005 .050	.000 .025	.350 TYP	14	2, 3, 4
MO004AB	.013 .017	.005 .050	.000 .025	.350 TYP	14	2, 3, 4
MO004AC	.015 .019	.000 .097	.000 .029	.350 TYP	14	2, 3, 4
MO004AD	.015 .019	.005 .050	.000 .050	.300 TYP	10	2, 3, 4
MO004AE	.015 .019	.005 .050	.000 .025	.250 TYP	10	2, 3, 4
MO004AF	.015 .019	.005 .050	.000 .050	.400 TYP	14	2, 3, 4
MO004AG	.015 .019	.005 .050	.000 .025	.400 TYP	16	2, 3, 4
MO004AH	.015 .019	.005 .050	.000 .050	.450 TYP	16	2, 3, 4

[illegible]

1. Refer to Rules for Dimensioning Axial Lead Product Outlines.
2. Leads at gauge plane within .007" radius of True Positions (TP) with maximum material condition.
3. Dim. .016" Min. and .019" Max. applies between .000" Min. and .050 Max. and .250" Min. and .500" Max. Dim. .016" Min. and .021" Max. applies between .250" Min. and .500" Max. and .500" from seating plane. Diameter is uncontrolled in .000" Min. and .050" Max. and .500".
4. Measured from Max. .370".
5. One (1) allowable missing lead.

	A	B	C	D	E	F	G	NO. OF LEADS
MO006AA	.010 .040	.240 .260	.140 .160	.040 MAX	.050 MAX	.500 MIN	36*	10
MO006AB	0	.240 .260	0	.040 MAX	.050 MAX	.500 MIN	36*	10
MO006AC	0	.140 .160	0	.040 MAX	.050 MAX	.500 MIN	36*	10
MO006AD	.010 .140	.160 .180	.140 .160	.040 MAX	.050 MAX	.500 MIN	36*	10
MO006AE	.010 .040	.165 .185	.140 .160	.040 MAX	.050 MAX	.500 MIN	30*	12
MO006AF	0	.165 .185	0	.020 .040	.000 .050	.500 .562	36*	10
MO006AG	0	.165 .185	0	.020 .040	.000 .050	.500 .562	30*	12

MO015

Technical drawing of a component, showing top and side views with dimensions and callouts.

Top View Dimensions:

- E:** Overall length.
- J:** Distance from left edge to first pin.
- H:** Distance from right edge to last pin.
- A:** Pin height.
- B:** Pin width.
- C:** Pin pitch.
- D:** Pin width.
- G:** Distance from seating plane to base plane.
- .000 / .030:** Tolerance for distance G.
- .100 T.P.:** Tolerance for distance C.

Side View Dimensions:

- F:** Overall height.
- .600 / .625 T.P.:** Tolerance for distance F.
- INDEX AREA:** Points to a specific feature on the side view.
- 1 / 24:** Feature identifier and count.
- 0° / 15°:** Angle of the feature.
- K:** Feature identifier.

Callouts:

- *1:** Points to the top edge.
- *2:** Points to the pin.
- *3:** Points to the pin pitch dimension.
- *4:** Points to the angled feature.

1. Refer to Rules for Dimensioning Axial Lead Product Outlines.
2. When base of body is to be attached to heat sink, terminal lead standoffs are not required and $B = 0$. When $B = 0$, the leads emerge from the body with the D dimension and reduce to the C dimension above the seating plane.
3. .100 T.P. and DIM. .600 T.P. apply in Zone .000 to .030 when unit installed. Leads within .005" radius of True Position (TP) at gauge plane with maximum material condition.
4. Applies to spread leads prior to installation.
5. 24 is the maximum quantity of lead positions.

K	A B C D E F G H J K										NO. OF LEADS	NO. OF FINS MISSING	NOTES
	A	B	C	D	E	F	G	H	J	K			
MO015AA	.120 .250	.020 .070	.016 .020	.028 .170	1.20 1.29	.515 .580	.100 .200	.040 .075	.040 .100	.008 .012			3, 4, 5, 6
MO015AB	.120 .250	.020 .070	.016 .020	.028 .700	.700 .840	.515 .580	.100 .200	.040 .075	.040 .100	.008 .012	16	0	3, 4, 5, 6
MO015AC	.120 .250	.020 .070	.016 .020	.028 .180	1.80 .89	.515 .580	.100 .200	.065 .105	.040 .040	.008 .012	36	0	3, 4, 5, 6
MO015AD	.100 .200	.000 .070	.015 .020	.015 .055	1.17 1.12	.515 .580	.100 .200	.020 .050	.025 .070	.008 .012	24	0	3, 4, 5, 6
MO015AE	.100 .200	.000 .070	.015 .020	.015 .055	.770 .810	.515 .580	.100 .200	.020 .080	.025 .050	.008 .012	36	0	2, 3, 4, 5, 6
MO015AF	.100 .200	.000 .070	.015 .020	.015 .055	1.77 1.81	.515 .580	.100 .200	.020 .080	.025 .050	.008 .012	36	0	2, 3, 4, 5, 6
MO015AG	.090 .150	.020 .050	.014 .020	.050 .054	1.220 1.230	.520 .550	.125 .150	.020 .060	.050 .100	.008 .012	24	4	2, 3, 4, 5, 6
MO015AH	.100 .200	.000 .070	.015 .020	.015 .055	1.380 1.420	.485 .515	.100 .200	.020 .070	.040 .070	.008 .012	28	0	2, 3, 4, 5, 6
MO015AJ	.100 .200	.000 .070	.015 .020	.015 .055	1.980 2.200	.485 .515	.100 .200	.020 .070	.040 .070	.008 .012	40	0	2, 3, 4, 5, 6
MO015AK	.145 .175	.030 .050	.015 .020	.040 .050	1.240 1.260	.540 .560	.100 .140	.045 .075	.065 .085	.008 .015	24	0	2, 3, 4, 5, 6

IN DRAWING NUMBER
SEQUENCE

Diagram illustrating the dimensions for a standard 44 pin edge connection:

- Top Left:** A detail of the edge showing a thickness of $0.32''$ and a pin pitch of $.156''$.
- Main View:** A rectangular board with a total width of $4.7''$ and a total height of $3.2''$. The top edge features a 44-pin connector with a width of $3.6''$.
- Right Side Detail:** A vertical cross-section of the board showing the **BOARD THICKNESS** as $.062-.074''$ and the **MAX. THICKNESS** of the connector area as $.400''$.
- Label:** A circled number 1 (①) points to the connector area.

① Standard 44 pin edge connection.

Diagram of a rectangular board with dimensions A, B, and C. The board has a thickness E at the connector. Pin 1 is at the bottom right corner, and Pin 79 is at the top right corner. The distance between the pins is 5.1 inches. The board is labeled PL2.

	A	B	C	D	E
PL2	9.70	7.00	.300	.125	.054 - .072
PL2a	7.50	6.00	.500		

Technical drawing of the PL3 component. The top view shows a rectangular package with a 4x4 grid of pins. Dimensions include a width of 0.250, a height of 0.214, and a total height of 5.50. The side view shows the component's profile with a total height of 3.50. Key dimensions for the side view include a width of 0.350, a height of 0.62, and a maximum height of 0.350. The drawing also indicates the locations of Pin 60 (Top), Pin 59 (Bottom), Pin 2 (Top), and Pin 1 (Bottom).

	A	B	C
PL3	3.99 4.01	.350	.550
PL3a	6.99 7.01	1.85	2.05

Technical drawing of a card guide assembly, showing dimensions and features. The drawing includes a top view and a side view.

Top View Dimensions:

- Overall width: 10.600
- Overall height: 10.42
- Clearance for card guide (top): .062
- Clearance for card guide (bottom): .062
- Clearance for card guide (left): .060
- Clearance for card guide (right): .025
- Wiring side of P.W.B. (Printed Wiring Board)
- 11 HOLES $\frac{.127}{.133}$ DIA.
- Dimensions from Datum 'X' to Datum 'Y': 4.700, 8.850, 9.400
- Dimensions from Datum 'X' to Datum 'Y' (bottom): 4.110, 5.192, 10.282, 12.90
- Dimensions from Datum 'X' to Datum 'Y' (right): .32 (REF)

Side View Dimensions:

- Overall width: 6.172
- Overall height: 5.545
- Aperture required in base to facilitate mounting of edge connector: .893 (ref.)
- 4 Holes Drill $\frac{.127}{.133}$ Dia.
- Dimensions from Datum 'X' to Datum 'Y': 5.645, 5.350, 6.367, 5.155
- Dimensions from Datum 'X' to Datum 'Y' (right): .390

Diagram illustrating the dimensions of a module. The central area is labeled "MODULE AREA". Dimensions are indicated by arrows and letters:

- A**: Total width of the module.
- B**: Total height of the module.
- C**: Width of the top border.
- D**: Width of the bottom border.
- E**: Width of the left border.
- F**: Width of the right border.
- G**: Width of the top-left corner border.
- H**: Width of the bottom-left corner border.
- J**: Width of the top-right corner border.
- K**: Width of the bottom-right corner border.
- L**: Width of the top-left corner border (inner).
- M**: Width of the bottom-left corner border (inner).
- N**: Width of the top-right corner border (inner).
- P**: Width of the bottom-right corner border (inner).
- Q**: Width of the top-left corner border (outer).
- R**: Width of the bottom-left corner border (outer).
- S**: Width of the top-right corner border (outer).
- T**: Width of the bottom-right corner border (outer).
- U**: Width of the top-left corner border (outer).
- V**: Width of the bottom-left corner border (outer).
- W**: Width of the top-right corner border (outer).
- X**: Width of the bottom-right corner border (outer).
- Y**: Width of the top-left corner border (outer).
- Z**: Width of the bottom-left corner border (outer).

	A	B	C	D	E	F	G	H	J	K	M	N	P
PL5	8.80	7.90	.068 .056	.380 TYP	7.46	.670	.600	.105 .095	.153 .147	.650 TYP	.215 TYP	TAB 97	TAB 1
PL5a	5.00	6.00	.068 .056	.380 TYP	4.36	.320	.400 TYP	.075 .065	.103 .097	.650 TYP	.215 TYP	TAB 85	TAB 1

IN DRAWING NUMBER
SEQUENCE

Technical drawing of a rectangular plate. The overall width is labeled as $3 \frac{7}{8}$ and the overall height is labeled as $3 \frac{5}{16}$. The plate features two vertical slots on the left and right sides, each labeled with the number 35. The distance between the inner vertical lines of these slots is labeled as 2. The plate has rounded corners and two small circular features (possibly holes or fasteners) at the top corners.

Technical drawing of a component showing top and side views with dimensions and labels.

Top View Dimensions:

- Overall width: 3.875
- Overall height: 400
- Top edge features: .005, 3.375, 2.600, 1.005, 1.005
- Internal width segments: 300, 17 EQUAL SPACES @ .175 ± 2.100, 300
- Internal height segments: 100, 250, 330 TYP. REF., 3.250
- Bottom edge features: 8.75, 36, 134, 3.607
- Bottom edge spacing: 47 EQUAL SPACES @ 125 3.375
- Right side features: 125 TYP. REF., 550, 330 ± .030, 125 TYP.
- Labels: APPROVED COMPONENT MOUNTING AREA

Side View Dimensions:

- Overall height: 330 REF.
- Top edge features: .070 DIA 2 HOLES, .093 DIA 2 HOLES
- Bottom edge features: .062 REF.
- Label: SINGLE CARD SLOT (500 CENTER) MAX. COMPONENT HEIGHT .330 REF.

Figure 1 is a mechanical drawing of the Serial to Parallel Register. The drawing shows a top-down view of the component with dimensions and pin locations. The top edge features a header with pins 1 through 12, labeled "SERIAL TO PARALLEL REGISTER". Pin 1 is labeled "GRD" and pin 12 is labeled "DTC". The component has a total width of 4.50 inches and a total height of 2.16 inches. The top section is 0.35 inches high. The main body contains three vertical sections labeled C2, C3, and C4, each with a corresponding output pin (A1, A2, A3) and a set of 12 pins (1-12). The distance between the center of the first and last pin is 3.56 inches.

KEY SLOTS LOCATED BETWEEN PINS 1 & 2; 4 & 5; 13 & 14.

Technical drawing of a mechanical part, showing side and end views with dimensions and notes.

Side View Dimensions:

- Overall width: .240
- Overall height: .305
- Internal width: .260
- Internal height: .335
- Bottom flange width: .335
- Bottom flange height: .370
- Top flange width: .050 MAX
- Top flange height: .040 MAX
- Internal hole diameter: .016
- Internal hole depth: .021
- Internal hole diameter: .016
- Internal hole depth: .019

End View Dimensions:

- Overall diameter: 100 T.P.
- Internal hole diameter: .029
- Internal hole depth: .045
- Internal hole diameter: .100 T.P.
- Internal hole depth: .200 T.P.
- Internal hole diameter: .016
- Internal hole depth: .021
- Internal hole diameter: .016
- Internal hole depth: .019

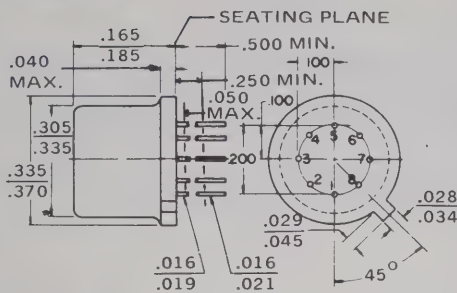
Notes:

- NOTE 2: SEATING PLANE
- NOTE 4: 100 T.P.
- NOTE 3: .029 .045
- NOTE 2: .016 .021
- NOTE 4, 6: 45° T.P. 15° T.P.

1. (Twelve Leads). Maximum number of leads omitted in this outline, "one" (1). The number and position of leads actually present are indicated on the product registration. Outline designation determined by the location and minimum angular spacing of any two adjacent leads.
2. (All Leads) Dim. .016 Min and .019 Max applies between .050 Max and .250 Min. Dim. .016 Min and .021 Max applies between .250 Min and .500 (12.70 MM) from seating plane. Diameter is uncontrolled in Dim. .050 Max and beyond .500 (12.70 MM) from seating plane.
3. Measured from maximum diameter of the product.
4. Leads having maximum diameter of .018" to .043 MM measured in gaging plane .054" (1.37 MM) + .001" (.025 MM) - .000" (.000 MM) below the seating plane. The product shall be within .007" (.178 MM) of their true position relative to a maximum width tab.
5. The product may be measured by direct methods or by gage.
6. Tab Centerline.

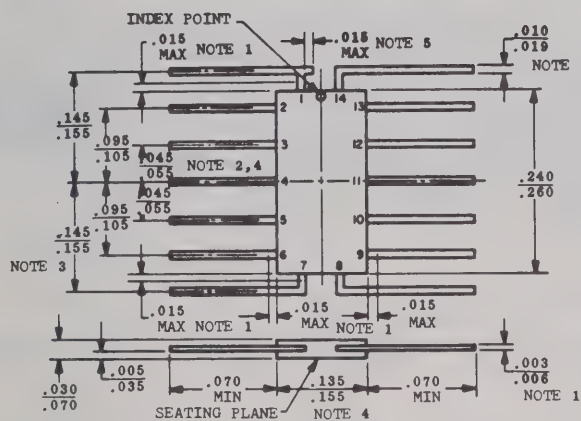
IN DRAWING NUMBER
SEQUENCE

NOTES :



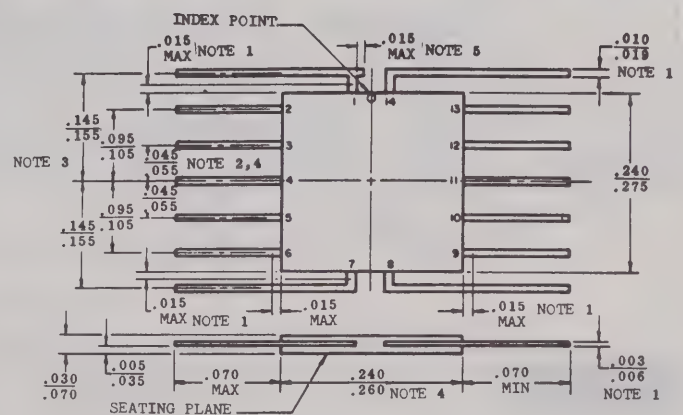
1. (EIGHT LEADS). Minimum number of leads omitted in this outline, "three" (3). The number and position of leads actually present are indicated in the product registration. Outline designation determined by the location and minimum angular spacing of any two adjacent leads.
2. (ALL LEADS) Dim. .016 Min and .019 Max. applies between Dim. .050 Max. and .250 Min. Dim. .016 Min and .021 Max. applies between .500" (12.70 MM) from seating plane. Diameter is uncontrolled in .050 Max. and beyond .500" (12.70 MM) from seating plane.
3. Measured from maximum diameter of the product.
4. Leads having maximum diameter .019" (.483 MM) measured in gaging plane .054" (1.37 MM) + .001" (.025 MM) - .000" (.000 MM) below the seating plane of the product shall be within .007" (.178 MM) of their true position relative to a maximum width tab.
5. The product may be measured by direct methods or by gage.
6. Tab Centerline.

T086



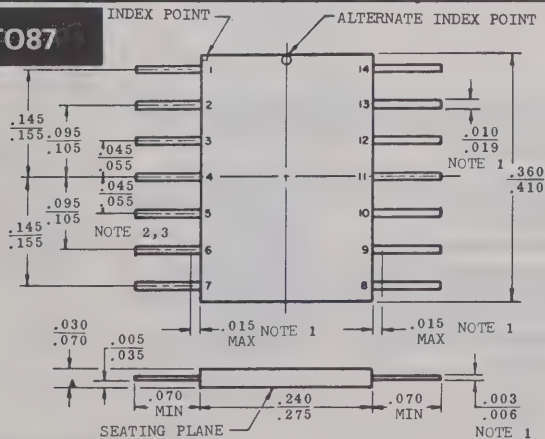
NOTES :

1. Lead dimensions uncontrolled in this zone to allow for body and lead finish irregularities.
2. Leads missing from their designated positions shall also be counted when numbering leads for specific applications.
3. Spacing and Angle of the end leads at the point of emergence of body is not controlled.
4. Lead spacing shall be measured within .030 (.762 mm) from the point of emergence from the body or, as in the case of end lead, from the point where the extension of the body outline intersects the end leads.
5. Mechanical Index, Optional.



NOTES:

1. Lead dimensions uncontrolled in this zone to allow for body and lead finish irregularities.
2. Leads missing from their designated positions shall also be counted when numbering leads for specific applications.
3. Spacing and Angle of the end leads at the point of emergence of body is not controlled.
4. Lead spacing shall be measured within .030 (.763 mm) from the point of emergence of the body or, as in the case of end lead, from the point where the extension of the body outline intersects the end leads.
5. Mechanical Index. Optional.

INDEX POINT ☐ ALTERNATE INDEX POINT ☐

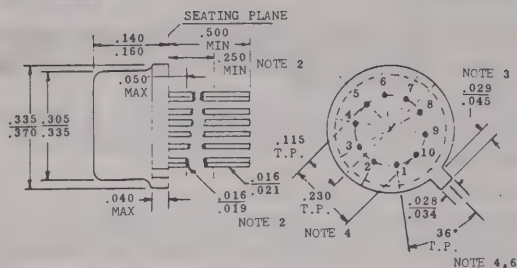
NOTES :

1. Lead Dimensions uncontrolled in this zone to allow for body and lead finish irregularities.
2. Leads missing from their designated positions shall also be counted when numbering leads for specific applications.
3. Lead spacing shall be measured within .030 (.762 mm) from the point of emergence from the body.

SECTION 10. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

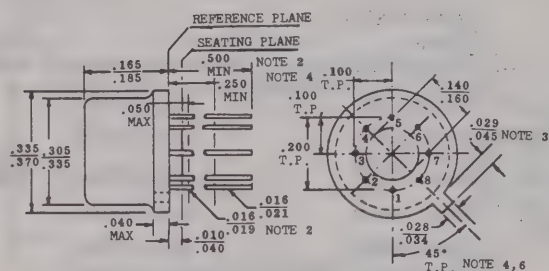
T097



NOTES:

1. (Ten Leads). Maximum number of leads omitted in this outline, "one" (1). The number and position of leads actually present are indicated in the product registration. Outline designation determined by the location and minimum angular spacing of any two adjacent leads.
2. (All Leads) Dim. .016 Min and .019 Max applies between .050 Max and .250 Min. Dim. .016 Min and .021 Max applies between .250 Min and .500" (12.70 MM) from seating plane. Diameter is uncontrolled in Dim .050 Max and beyond .500" (12.70 MM) from seating plane.
3. Measured from maximum diameter of the product.
4. Leads having maximum diameter .019" (.483 MM) measured in gaging plane .054 (1.37 MM) + .001" (.025 MM) - .000" (.000 MM) below the seating plane of the product shall be within .007" (.178 MM) of their true position relative to a maximum width tab.
5. The product may be measured by direct methods or by gage.
6. Tab Centerline.

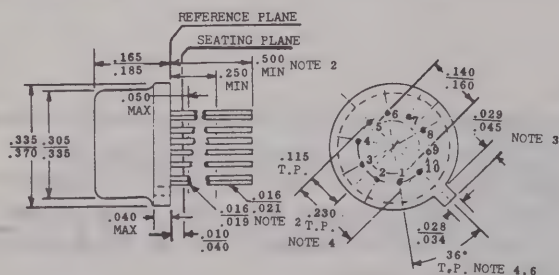
T099



NOTES:

1. (Eight Leads). Maximum number of leads omitted in this outline, "one" (1). The number and position of leads actually present are indicated in the product registration. Outline designation determined by the location and minimum angular spacing of any two adjacent leads.
2. (All Leads) Dim. .016 Min and .019 Max applies between .050 Max and .250 Min. Dim. .016 Min and .021 Max applies between .250 Min and .500" (12.70 MM) from seating plane. Diameter is uncontrolled in Dim .050 Max and beyond .500" (12.70 MM) from seating plane.
3. Measured from maximum diameter of the product.
4. Leads having maximum diameter .019" (.483 MM) measured in gaging plane .054 (1.37 MM) + .001" (.025 MM) - .000" (.000 MM) below the seating plane of the product shall be within .007" (.178 MM) of their true position relative to a maximum width tab.
5. The product may be measured by direct methods or by gage.
6. Tab Centerline.

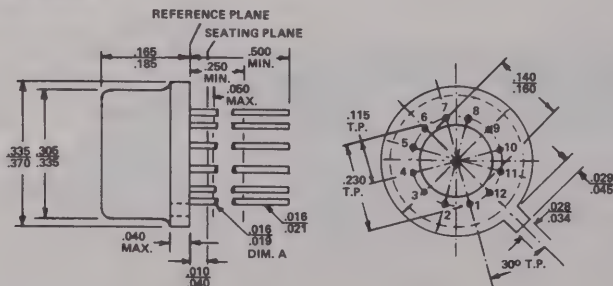
T0100



NOTES:

1. (Ten Leads). Maximum number of leads omitted in this outline, "one" (1). The number and position of leads actually present are indicated in the product registration. Outline designation determined by the location and minimum angular spacing of any two adjacent leads.
2. (All Leads) Dim. .016 Min and .019 Max applies between .050 Max and .250 Min. Dim. .016 Min and .021 Max applies between .250 Min and .500" (12.70 MM) from seating plane. Diameter is uncontrolled in Dim .050 Max and beyond .500" (12.70 MM) from seating plane.
3. Measured from maximum diameter of the product.
4. Leads having maximum diameter .019" (.483 MM) measured in gaging plane .054 (1.37 MM) + .001" (.025 MM) - .000" (.000 MM) below the seating plane of the product shall be within .007" (.178 MM) of their true position relative to a maximum width tab.
5. The product may be measured by direct methods or by gage.
6. Tab Centerline.

T0101



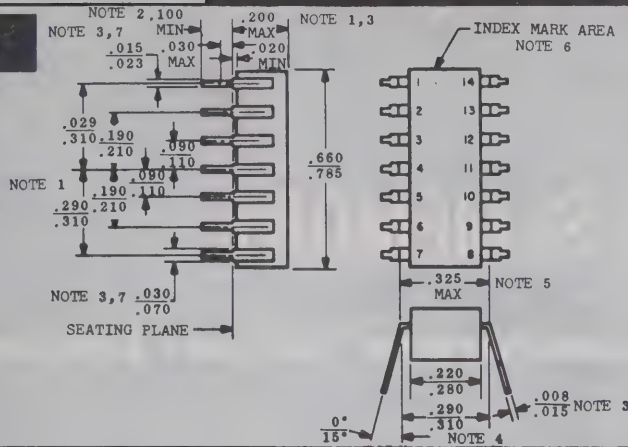
NOTES:

1. (TWELVE LEADS). MAXIMUM NUMBER OF LEADS OMITTED IN THIS OUTLINE, "ONE" (1). THE NUMBER AND POSITION OF LEADS ACTUALLY PRESENT ARE INDICATED IN THE PRODUCT REGISTRATION. OUTLINE DESIGNATION DETERMINED BY THE LOCATION AND MINIMUM ANGULAR SPACING OF ANY TWO ADJACENT LEADS.
2. (ALL LEADS). DIM. A APPLIES BETWEEN .050 MAX. AND .250 MIN. DIM. B APPLIES BETWEEN .250 MIN. AND .500" (12.70 MM) FROM REFERENCE PLANE. DIAMETER IS UNCONTROLLED IN .050 MAX. AND BEYOND .500" (12.70 MM) FROM REFERENCE PLANE.
3. MEASURED FROM MAXIMUM DIAMETER OF THE PRODUCT.
4. LEADS HAVING MAXIMUM DIAMETER .019" (.483 MM) MEASURED IN GAUGING PLANE .054" (1.37 MM) + .001" (.025 MM) - .000" (.000 MM) BELOW THE REFERENCE PLANE OF THE PRODUCT SHALL BE WITHIN .007" (.178 MM) OF THEIR TRUE POSITION RELATIVE TO A MAXIMUM WIDTH TAB.
5. THE PRODUCT MAY BE MEASURED BY DIRECT METHODS OR BY GAUGE.
6. TAB CENTERLINE.

SECTION 10. OUTLINE DRAWINGS

IN DRAWING NUMBER
SEQUENCE

TO116



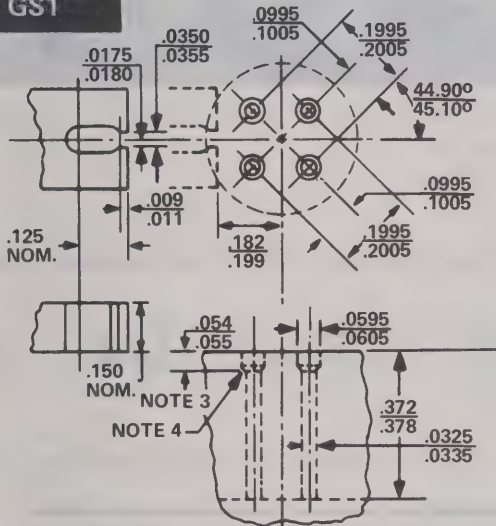
NOTES:

1. Leads missing from their designated positions shall be counted when numbering leads for special applications.
2. Lead spacing shall be measured within this zone.
3. Typical all leads.
4. Installed position of lead centers.
5. Overall installed width.
6. Index to be visible from top, this end only.
7. Lead transition geometry from Dia .015 min to .023 max to Dia .030 min to .070 max optional on body side of seating plane.

JEDEC GAUGE DESIGNATIONS

The Gauge Designations below are referenced in the JEDEC TO Outline Drawings

GS1



NOTES:

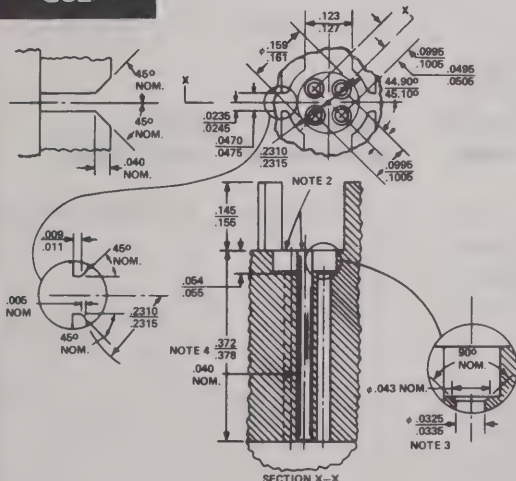
1. THE LOCATION OF THE TAB LOCATOR WITHIN THE LIMITS INDICATED WILL BE DETERMINED BY THE TAB AND FLANGE DIMENSIONS OF THE DEVICE BEING CHECKED.
2. THE FOLLOWING GAUGING PROCEDURE SHALL BE USED:

THE DEVICE BEING MEASURED SHALL BE INSERTED UNTIL ITS SEATING PLANE IS .125" (3.18 MM) \pm .010" (.254MM) FROM THE SEATING SURFACE OF THE GAUGE. A FORCE OF 8 ± 0.5 OZ. SHALL THEN BE APPLIED PARALLEL AND SYMMETRICAL TO THE DEVICE'S CYLINDRICAL AXIS. WHEN EXAMINED VISUALLY AFTER THE FORCE APPLICATION (THE FORCE NEED NOT BE REMOVED) THE SEATING PLANE OF THE DEVICE SHALL BE SEATED AGAINST THE GAUGE.

THE USE OF A PIN STRAIGHTENER PRIOR TO INSERTION IN THE GAUGE IS PERMISSIBLE.

3. GAUGING PLANE.
4. DRILL ANGLE.

GS2



NOTE 1: THE FOLLOWING GAUGING PROCEDURE SHALL BE USED:

THE DEVICE BEING MEASURED SHALL BE INSERTED UNTIL ITS SEATING PLANE IS $0.125" \pm 0.010"$ FROM THE SEATING SURFACE OF THE GAUGE. A FORCE OF 8 ± 0.5 OZ. SHALL THEN BE APPLIED PARALLEL AND SYMMETRICAL TO THE DEVICE'S CYLINDRICAL AXIS. WHEN EXAMINED VISUALLY AFTER THE FORCE APPLICATION (THE FORCE NEED NOT BE REMOVED) THE SEATING PLANE OF THE DEVICE SHALL BE SEATED AGAINST THE GAUGE.

THE USE OF A PIN STRAIGHTENER PRIOR TO INSERTION IN THE GAUGE IS PERMISSIBLE.

A SPACER MAY BE USED TO OBTAIN THE $0.125"$ DISTANCE FROM THE GAUGE SEAT PRIOR TO FORCE APPLICATION.

NOTE 2: THESE SURFACES TO BE PARALLEL AND IN SAME PLANE WITHIN $\pm .001"$

NOTE 3: FOUR HOLES.

NOTE 4: PRESSED IN.

MSI-LSI MEMORY

Manufacturers' Local Offices

These manufacturers have listed their local offices in this section for your convenience. Please contact the local office nearest you for any additional information you may need.

(MANUFACTURERS IN ORDER OF D.A.T.A. CODE LETTERS)

ALGG — AEG-TELEFUNKEN

Postfach 940, D 7100 Heilbronn, Germany

Zip Code

Telephone No.

Telex

07131-8821

728746

AMS — ADVANCED MEMORY SYSTEMS

1276 Hammerwood Avenue, Sunnyvale, California

Zip Code

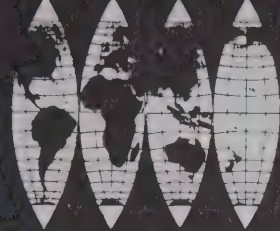
Telephone No.

TWX

94086

408-734-4330

910-339-9369



Manufacturers' Local Offices

FSC — FAIRCHILD SEMICONDUCTOR

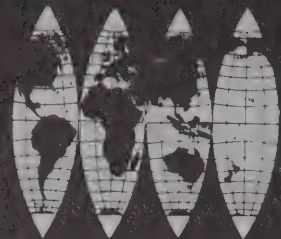
DIV. of FAIRCHILD CAMERA & INSTRUMENT CORP. 464 Ellis Street, Mountain View, California	Zip Code 94040	Telephone No. 415-962-5011	TWX 910-379-6435 Cable FAIRSEMCO
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HAS — HARRIS SEMICONDUCTOR

Post Office Box 883, Melbourne, Florida	Zip Code 32901	Telephone No. 305-727-4000	TWX 510-959-6259
<u>INTERNATIONAL</u>			
BELGIUM Brussels	Harris Semiconductor, Inc. 1000 53 Blvd. de Waterloo	02 428 3602	Telex 26382
JAPAN Tokyo	Harris Semiconductor Far East Division B-111, Time-Life Bldg. 2-3-6 Ohatemachi, Chiyoda-Ku		

ITL — INTEL CORPORATION

3065 Bowers Avenue, Santa Clara, California	Zip Code 95051	Telephone No. 408-246-7501	TWX 910-338-0026 Telex 346-732
CALIFORNIA Santa Ana	Intel Corporation 92701 Western Regional Office 1651 East 4th Street Suite 228	714-835-9642	TWX 910-595-1114
MASSACHUSETTS Lexington	Intel Corporation 02173 Eastern Regional Office 2 Militia Drive Suite 4	617-861-1136	TWX 910-321-0029
OHIO Dayton	Intel Corporation 45415 Great Lakes Regional Office 8312 North Main Street	513-890-5350	Telex 288004



Manufacturers' Local Offices

ITL — INTEL CORPORATION (Cont'd)

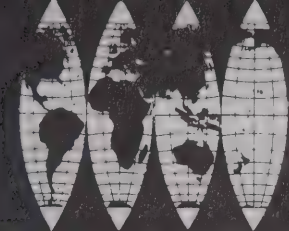
3065 Bowers Avenue, Santa Calra, California	Zip Code 95051	Telephone No 408-246-7501	TWX 910-338-0026 Telex 346-732
PENNSYLVANIA Fort Washington Intel Corporation	19034	215-542-9444	TWX 510-661-3055
Mid-Atlantic Regional Office 520 Pennsylvania Avenue Suite 102			
TEXAS Dallas Intel Corporation	75240	214-661-8829	TWX 910-860-5487
Mid-America Regional Office 6350 LBJ Freeway Suite 178			

INTERNATIONAL

BELGIUM Bruxelles Intel Corporation	B-1050	649-20-03	Telex 846-24814
Avenue Louise 216			
JAPAN Tokyo Intel Corporation	101	03-295-5441	Telex 781 28426
Kasahara Bldg. 1-6-10, Uchikanda Chiyoda-ku			

MATJ — MATSUSHITA ELECTRIC CORPORATION OF AMERICA

INDUSTRIAL COMPONENT DEPARTMENT	Zip Code	Telephone No.	TWX
54th Floor, Pan-Am Building, 200 Park Avenue, New York, N. Y.	10017	212-973-5710	710-581-4158
<u>INTERNATIONAL</u>			
GERMANY 2 Hamburg 36 Matsushita Electric Sales (Europe) GmbH..		34153/4/5	HAMATELEC HAMBUR
Jungfernstieg 40			
JAPAN Kyoto Matsushita Electronics Corporation		075-921-8151	
Semiconductor Division 1 Yatemachi Kotari Nagaokakyo City			

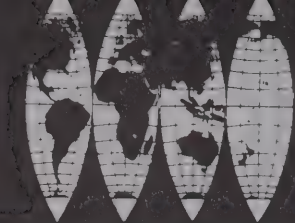


Manufacturers' Local Offices

PHIN — PHILIPS GLOEILAMPENFABRIEKEN

			Zip Code	Telephone No.	Cable
PRODUCT DIVISION ELCOMA					
Building BF, Eindhoven, Netherlands				040 79 11 11	PHILIPS EINDHOVEN
ARGENTINA	Buenos Aires	Fapesa I.y.C Ave. Crovara 2550		652-7438/7478	
AUSTRALIA	Lane Cove	Philips Industries, Ltd. Elcoma Division 67-71 Mars Road	2066 N.S.W.	42 1261	
AUSTRIA	Wien	Oesterreichische Philips Bauelemente Industrie G.m.b.H. Zieglergasse 6	A-1072	93 26 22	
BELGIUM	Brussels	M.B.L.E. 80 Rue des Deux Gares	B-1070	23 00 00	
BRAZIL	Sao Paulo, SP	Ibrape S.A. Av. Paulista 2073-S/Loja		278-1111	
CANADA	Ontario	Philips Electronic Industries, Ltd. Electron Devices Division 116 Vanderhoof Avenue Toronto 17	M4G 2J1	425-5161	
DENMARK	Kobenhavn NV	Miniwatt A/S Emdrupvej 115A	DK-2400	(01)69 16 22	
FINLAND	Helsinki 10	Oy Philips Ab Elcoma Division Kaivokatu 8	SF-00100	1 72 71	
FRANCE	Paris 11	R.T.C. (RTCF)* La Radiotechnique Compelec 130 Avenue Ledru Rollin	F-75540	357 69 30	
GERMANY	Hamburg 1	Valvo GmbH (VALG)* Valvo Haus Burchardstrasse 19	D-2000	(040)3296-1	
HONG KONG	Kwuntong	Philips Hong Kong Ltd. Components Dept. 11th Fl. Din Wai Ind. Bldg. 49 Hoi Yuen Rd.		K-42 82 05-8	
ITALY	Milano	Philips S.p.A. Sezione Elcoma Piazza IV Novembre 3	I-20124	6994	

* Manufacturer Code inside () can be found in Section 12,
Manufacturers Code Names * Addresses

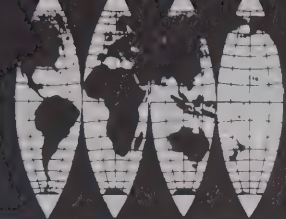


Manufacturers' Local Offices

PHIN – PHILIPS GLOEILAMPENFABRIEKEN (Cont'd)

		Zip Code	Telephone No.	Cable
PRODUCT DIVISION ELCOMA				
Building BF, Eindhoven, Netherlands			040 79 11 11	PHILIPS EINDHOVEN
JAPAN	Tokyo	Nihon Philips	(435)5204-5	
		32nd Fl., World Trade Center Bldg. 5, 3-chome, Shiba Hamamatsu-cho Minato-ku		
MEXICO	Mexico 6, D.F.	Electronica S.A. de C.V.	5-33-11-80	
		Varsovia No. 36		
NETHERLANDS	Eindhoven	Philips Nederland B.V.	NL-4510 (040)79 33 33	
		Afd. Elonco Boschdijk 525		
NORWAY	Oslo 3	Electronica A/S	46 39 70	
		Middelthunsgate 27		
SOUTH AFRICA	Johannesburg	EDAC (Pty.) Ltd.	24/6701-2	
		South Park Lane New Doornfontein		
SPAIN	Barcelona 7	Copresa S.A.	329 63 12	
		Balmes 22		
SWEDEN	Stockholm 27	Elcoma A.B.	S-10250 08/67 97 80	
		Lidingovagen 50		
SWITZERLAND	Zuerich	Philips A. G.	CH-8027 01/44 22 11	
		Elcoma Abteilung Edenstrasse 20		
TAIWAN	Taipei	Philips Taiwan Ltd.	55 31 01-5	
		Elcoma Division San Min Bldg., 3rd Fl. 57-1 Chung Shan N. Road		
UNITED KINGDOM ...	London	Mullard Ltd. (MULB)*	WC1E 7HD 01-580-6633	
		Mullard House Torrington Place		
UNITED STATES	Rhode Island	Amperex Electronic Corporation	02876 401-762-9000	
		Sem. & Microcircuits Div. Providence Pike Slatersville		

* Manufacturer Code inside () can be found in Section 12,
Manufacturers Code Names & Addresses



Manufacturers' Local Offices

RTCF — R.T.C. LA RADIOTECHNIQUE-COMPELEC

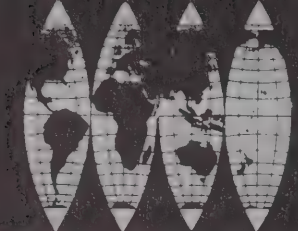
130, Avenue Ledru-Rollin, 75.540, Paris Cedex 11, France

Telephone No.
355-44-99

Telex
PHILAMP PARIS
28 746

SGAI — SGS-ATES COMPONENTI ELETTRONICI S.P.A.

		Zip Code	Telephone No.	Telex
Via C. Olivetti 2, Agrate Brianza, Italy		20041	39-650141	36131
ENGLAND	Aylesbury Bucks	SGS-ATES (United Kingdom) Ltd.	5977	83245
		Walton Street		
FRANCE	Paris Cedex 13	SGS-ATES France SA	584 1255	021/25938
		Residence "Le Palatino"		
		17, Avenue de Choisy		
GERMANY	Wasserburg Inn	SGS-ATES Deutschland GmbH	08071-721	05-25143
		Postfach 1269		
ITALY	Milano	SGS-ATES Componenti Elettronici S.p.A. ..	4695651	31481
		Via Tempesta 2		
SINGAPORE	Singapore 12	SGS-ATES Singapore (PTE) Ltd.	531411	21412
		Lorong 4 and 6 Toa Payoh		
SWEDEN	Marsta	SGS-ATES Scandinavia AB	0760/40120	10932
		Postbox		
U. S. A.	Massachusetts	SGS-ATES Semiconductor Corporation	617-969-1610	922482
		435 Newtonville Avenue		
		Newtonville		



Manufacturers' Local Offices

SIC — SIGNETICS CORP.

	Zip Code	Telephone No.	TWX
811 East Arques Avenue, Sunnyvale, California	94086	408-739-7700	910-339-9220

SLTC — SILTEK INTERNATIONAL LIMITED

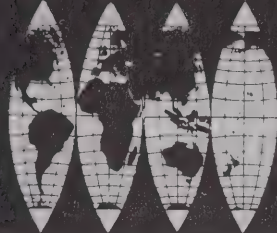
	Zip Code	Telephone No.	TWX
Airport Industrial Park, Bromont, Quebec, Canada	JOE 1LO	514-534-2255	610-532-6566 Telex 05-267474

EASTERN REGIONAL SALES OFFICE

Post Office Box 6706, Baltimore, Maryland	21204	301-825-2012	
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REPRESENTATIVES

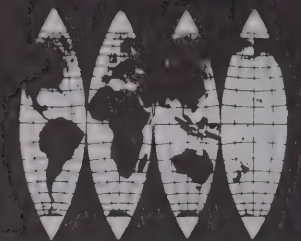
ALABAMA	Huntsville	A. B. Andrews and Company	35082	205-883-9550	
		2020A Colony Drive			
ARIZONA	Tempe	Delta Electronic Sales Corporation	85282	602-966-9903	
		610 West Broadway Road			
		Post Office Box 27024			
CALIFORNIA	Glendale	Orion Sales	91201	213-240-3151	TWX 910-497-2267
		1310 Airway			
	Mountain View	Nor-Cal Associates	94043	415-916-8121	
		1400 Stierlin Road			
	San Diego	J-T-L Associates	92111	714-277-8044	714-232-1949
		7215 Convoy Court			
	Tustin	Orion Sales	96280	714-832-9687	
		430 East Main Street			
COLORADO	Boulder	RG Enterprises	80303	303-794-8381	
		1700 55th Street			
FLORIDA	North Palm Beach ...	Lectromech Inc.	33408	305-622-1383	
		745 U.S. Highway 1			
		Suite 207			
ILLINOIS	Des Plaines	Coombs Associates	60018	312-298-4830	910-233-5980
		101 East Touhy Avenue			
INDIANA	Carmel	Giesting Associates	46032	317-844-8171	
		3367 Stratford Place			
MARYLAND	Baltimore	Coulbourn-Degrief Inc.	21227	301-247-4646	710-236-9011
		5205 East Drive			
		Suite 2			



Manufacturers' Local Offices

SLTC — SILTEK INTERNATIONAL LIMITED (Cont'd)

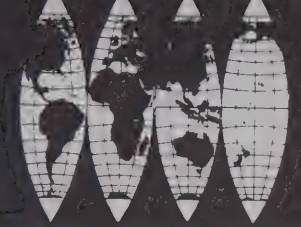
			Zip Code	Telephone No.	TWX
Airport Industrial Park, Bromont, Quebec, Canada			JOE 1LO	514-534-2255	610-532-6566 Telex 05-267474
MASSACHUSETTS.....	Burlington	Contact Sales Inc. 101 Cambridge Street	01803	617-273-1520	710-332-6569
MICHIGAN	Livonia	Reptron Inc. 31199 Schoolcraft Road	48150	313-525-2700	810-242-2904
MINNESOTA	Minneapolis	Electronic Innovators Inc. 8053 Bloomington Freeway	55420	612-884-7471 612-888-5000	Telex 29-0766
MISSOURI	Grandview	Beneke and McCaul Inc. Post Office Box 144	64030	816-765-2998	
	St. Louis	Beneke and McCaul Inc. Post Office Box 24522	63141	314-434-6242	
NEW JERSEY	Haddonfield	Mesa Technical Associates 20 Kings Highway West	08033	609-429-9531 609-429-4675	
NEW YORK	North Syracuse	Precision Power Devices 223 Taft Road	13212	315-458-2223	
	Orchard Park.....	Precision Power Devices 4180 Abbott Road	14127	716-648-5450	
	Valley Cottage	L. R. C. Associates Post Office Box 114	10989	914-634-7973	
NORTH CAROLINA ..	Raleigh	A. B. Andrews and Company Branch Bank and Trust Co. Bldg. Box 2627 Suite 1401	27602	919-833-5565	
OHIO	Cincinnati	Giesting Associates 3274 Donnybrook Lane	45239	513-931-0812	Telex 214283
WASHINGTON	Tukwila	General Electronics Inc. 614 Industry Drive	98188	206-243-5141	TWX 910-444-2195
WISCONSIN	Greendale	Coombs Associates 6663 Industrial Loop	53129	414-421-2300	



Manufacturers' Local Offices

SLTC – SILTEK INTERNATIONAL LIMITED (Cont'd)

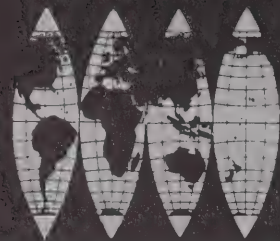
			Zip Code	Telephone No.	TWX
Airport Industrial Park, Bromont, Quebec, Canada			JOE 1L0	514-534-2255	610-532-6566
<u>INTERNATIONAL</u>					Telex 05-267474 Telex AA33288
AUSTRALIA	Oakleigh	R & D Electronics PTY. Ltd. Post Office Box 176	3166	288-8232	
AUSTRIA	Wien	Bacher Elektronische..... Meidlinger Haupttrabe 78	A-1120	022-837152	01-11532
BELGIUM	Brussels	Sidelec NV	1150	35-97-91	46-25141
		Av. Eleonore 28			
ENGLAND	High Wycombe	Active Electronics		0494-31191	51-2611234
	(Bucks)	Division of Velmberry Ltd. 23 Amersham Hill			
FINLAND	Helsinki 30	Yleiseletroniikka Oy	00301	90-57-12-13	12-3212
		Post Office Box 14 Steniuksentie 15			
FRANCE	Sevres	Tekelex Airtronic	92310	626-02-35	42-25997
		Cite Des Bruyeres Rue Carle Vernet			
GERMANY	Fellbach	Gonda Elektronik GmbH	7012	0711-511838	72-54663
		Salierstrasse 25			
HOLLAND	Amsterdam	Tekelec Airtronic		020-92876	44-16009
		Kruislaan 235			
ISRAEL	Tel Aviv	R & N Electronics		03-471032	032470/1 COIN
		14 Ehud Street Zahala			
ITALY	Milano	Metroelettronica	20135	546-2641	43-33168
		Viale Cirene 18			
NORWAY	Oslo	Hans H. Schive A.S.		55-76-92	56-19124
		Post Office Box 250			
SOUTH AFRICA	Pinegowrie	Radiokom	2123	48-5712	43-08038 SA
		Post Office Box 56310			
SPAIN	Barcelona 17	Interface		203-53-30	Telex 54713
		Rda. Gral. Mitre 7			
SWEDEN	Vallingby 5	Svensk Teleindustri AB	S-162	08-89-0453	
		Post Office Box 502			



Manufacturers' Local Offices

SMI — SEMI, INC.

			Zip Code	Telephone No.
DIVISION OF ELECTRONIC MEMORIES & MAGNETICS CORP.				
3883 North 28th Avenue, Phoenix, Arizona			85017	602-263-0202
CALIFORNIA	Orange	Electronic Memories	92667	714-639-5811
		1161 Tustin Avenue, North Suite G		
Santa Clara		Electronic Memories	95051	408-247-9711
		1333 Lawrence Expressway Suite 264		
ILLINOIS	Des Plaines	Electronic Memories	60018	312-297-7090
		1400 East Touhy Avenue Suite 440		
MASSACHUSETTS	Lexington	Electronic Memories	02173	617-861-9650
		2 Militia Drive		
MINNESOTA	Minneapolis	Electronic Memories	55435	612-941-2404
		7317 Cahill Road		
NEW YORK	Melville	Electronic Memories	11746	516-423-5800
		150 Broad Hollow Road		
OHIO	Akron	Electronic Memories	44313	216-867-5435
		1795 West Market Street Suite 221		
VIRGINIA	Annandale	Electronic Memories	22003	703-941-2100
		7617 Little River Turnpike Suite 430		



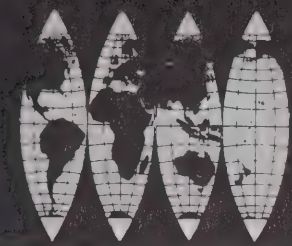
Manufacturers' Local Offices

SOD – SOLITRON DEVICES, INC.

		Zip Code	Telephone No.	TWX
CORPORATE OFFICES				
256 Oak Tree Road, Tappan, New York		10983	914-359-5050	710-576-2654
CALIFORNIA	San Diego	Solitron Devices, Inc.	92123	714-278-8780
		8808 Balboa Avenue		910-335-1221
FLORIDA	Riviera Beach	Solitron Devices, Inc.	33404	305-848-4311
		1177 Blue Heron Boulevard		510-952-6676
INTERNATIONAL				
ENGLAND	Bedminster	Solidev Ltd.	(0732)60531	Telex 825461
AND		Edison Road		
EUROPE		Elms Industrial Estate		
		Bedford		
ASIA	Hong Kong	Solidev (H. K.) Ltd.	3-241187	Telephone No. 780-7914
		Post Office Box K2042		
		Kowloon		

THCF – THOMSON CSF

		Zip Code	Telephone No.	Telex
DIVISION SEMICONDUCTEURS SESCOSEM				
50, Rue Jean Pierre Timbaud, BP 120, Courbevoie, France		92403	788-50-01	SESCOM 61560F
AFRICA	Morocco	Casablanca SFRM	791.00-791 23	21924
(North)		40 Blvd. de la Resistance		
		Palais Mirabeau		
(South)	Alberton	Comtek	869.57.86	J-4376 34
	(Transvaal)	Post Office Box 57		
AUSTRALIA	Melbourne	Thomaus	3001	676363
		GPOB 3647X		THOMAU.SA 31888
AUSTRIA	Wien	Transalpina Electronica Ltd.	A 1010	56.15.71
		Elisabethstrasse 8		Inland 12 717
BELGIUM	Bruxelles 5	Thomson S. A.—N.V.	B 1050	648.64.85
		Avenue Louise 363		23 113
BRAZIL	Sao Paulo	Thomson CSF Componentes do Brasil	616.483	TESAFIBRA EMBRALC SP 309171 SAO PAULO
		Caixa Postal 4854		



Manufacturers' Local Offices

THCF — THOMSON CSF (Cont'd)

			Zip Code	Telephone No.	Telex
DIVISION SEMICONDUCTEURS SESCOSEM					
50, Rue Jean Pierre Timbaud, BP 120, Courbevoie, France			92403	788-50-01	SESCOM 61560 F
DENMARK	Copenhagen	Scan Supply	2200	193 5030	9037
		20 Nannasgade			
ENGLAND	London W5	Thomson-CSF (U.K.) Ltd.		579 55 11	Tesafi 25 659
		Bilton House			
		Uxbridge Road			
		Ealing			
FINLAND	Helsinki 25	OY Sufrá AB		49.01.37	Pierrejoly Helsinki
		Ruusulankatu 20 A 12			
FRANCE	Aix En Provence ...	Sescosem	13102	(91)27 98 15	41.665
		Service Commercial			
		15, rue Camille			
		Pelletan			
	Saint Egreve	Sescosem	38120	(76) 758112	
		Service Commercial			
GERMANY	Munchen 25	Sescosem Halbleiter GmbH	8000	89 76 751	522.916
		Fallstrasse 42			
ITALY	Milano	Mistral S.p.A.	20.125	68 84 141	Ducati 31.042
		Via Melchiorre Gioia, 72			
NORWAY	Oslo 6	Feiring AS		(2) 686360	16 435 feiring 0
		Post Office Box 101			
		Bryn			
PORTUGAL	Lisbon	Sd. Com Rualdo		P.P.C. 33725	Rualdo 6447P Lisbonne
		Rua S. Jose 15			
SPAIN	San Juan Despi	Componentes Electronicos S.A.		319.46. 50	53077
	(Barcelona)	Poligono Industrial, Font Santa			
		Calle, H.S./N			
SWEDEN	Solna 3	Elektrholm AB	17 103	82.02.80	19.389
		Dalvagen 12 S			
SWITZERLAND	Berne 9	Modulator S. A.	CH3000	23 21 42	32.431
		Fischerweg 11.13			
THE NETHERLANDS ..	La Haye	C. G. E. Compagnie Generale d'Electricita N.V.		60.88.10	31.045
		Koninginnegracht 64			
U. S. A.	California	Nucleonic Products Company, Inc.	91303	(213)887-1010	651.479
		6660 Variel Avenue			
		Canoga Park			

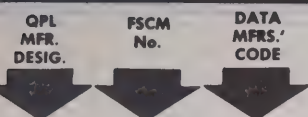


	Zip Code	Telephone No.	TWX
14520 Aviation Boulevard, Lawndale, California	90260	213-679-4561	910-325-6206

	Zip Code	Telephone No.	TWX
WORLDWIDE HEADQUARTERS 1300 Terra Bella Avenue, Mountain View, California	94043	415-968-9241	910-379-6494
			Telex 34-8416
<u>INTERNATIONAL</u>			
ENGLAND Middlesex Teledyne Semiconductor Ltd. Heathrow House Cranford, Hounslow		(44)01-897-2501	
JAPAN Tokyo Teledyne Semiconductor Nehonseimei-Aksaka Bldg. (3F) 1-19, Aksaka 8-chome Minato-ku	107	(03)405-5738	Telex (781)2424241
WEST GERMANY Weisbaden Teledyne Semiconductor Burastrasse 6-8	D-6200	06121-39171	Telex 418-6846

Additional offices in France, West Germany, Hong Kong and the United States. Representatives and distributors worldwide.

12. MANUFACTURERS CODES, NAMES & ADDRESSES



MANUFACTURERS' CODES, NAMES, AND ADDRESSES

	ABA	—	Abacus Division, Information Control Corp., 9610 Bellanca Ave., Los Angeles, Calif.	90045
	AEX	—	Ampex Corp., Computer Products Div., 13031 W. Jefferson Blvd., Marina Del Rey, Calif.	90292
	ALGG	—	AEG-Telefunken, Postfach 1109, D7100 Heilbronn, Germany	
	AMI	—	American Micro-Systems, Inc., 3800 Homestead Rd., Santa Clara, Calif.	95051
	AMS	—	Advanced Memory Systems, Inc., 1276 Hammerwood Ave., Sunnyvale, Calif.	94086
	AMV	—	Advanced Micro Devices, Inc., 901 Thompson Pl., Sunnyvale, Calif.	94086
	CRC	—	Collins Radio Co., MOS Standard Products, 4311 Jamboree Blvd., Newport Beach, Calif.	92663
	DTC	—	Data Technology Corp., 2700 So. Fairview Rd., Santa Ana, Calif.	92704
	EAI	—	Electronic Arrays, Inc., 550 E. Middlefield Rd., Mountain View, Calif.	94043
	ECD	—	Energy Conversion Devices, Inc., 1675 W. Maple Rd., Troy, Michigan	48084
	FSC	—	Fairchild Semiconductor, 464 Ellis St., M/S 20-2600, Mountain View, Calif.	94040
	GIC	—	General Instrument Corp., 600 W. John St., Hicksville, New York	11802
	HAS	—	Harris Semiconductor, P.O. Box 883, Melbourne, Florida	32901
	HITJ	—	Hitachi, Ltd., Semiconductor & I.C. Div., 1450 Josuihonmachi, Kodaira City, Tokyo, Japan	
	INL	—	Intersil, Inc., 10900 No. Tantau Ave., Cupertino, Calif.	95014
34649 —	ITL	—	Intel Corporation, 3065 Bowers Ave., Santa Clara, Calif.	95051
	ITT	—	ITT Semiconductors, Electronics Way, W. Palm Beach, Florida	33407
	ITTb	—	ITT Semiconductors, Footscray, Sidcup, Kent, England	
	MATJ	—	Matsushita Electronics Corp., 1 Kotari-Yakemachi, Nagaokakyo, Kyoto 617, Japan	
	MILC	—	Microsystems International, Ltd., Box 3529, Station C., Ottawa, Canada	
	MITJ	—	Mitsubishi Electric Corp., Kita-Itami Works, 4-1 Muzuhara, Itami-Shi, Hyogo-Ken, Post Code 664, Japan	
	MMI	—	Monolithic Memories, Inc., 1165 E. Arques Ave., Sunnyvale, Calif.	94086
	MMT	—	Memory Technology, Inc., 533 Boston Post Rd., Waland, Mass.	01776
	MON	—	Aydin-Monitor, 401 Commerce Dr., Fort Washington, Pa.	19034
	MOS	—	Mostek Corporation, 1215 W. Crosby Rd., Carrollton, Texas	75001
04713 —	MOTA	—	Motorola Semiconductor Products, Inc., 5005 E. McDowell Rd., Phoenix, Arizona	85017
51284 —	MTY	—	MOS Technology, Inc., Valley Forge Corporate Center, 950 Rittenhouse Rd., Norristown, Pa.	19401

★ NEW MANUFACTURERS

Manufacturers shown in bold print have local offices, which are included in Section 11 of this D.A.T.A.BOOK

12. MANUFACTURERS CODES, NAMES & ADDRESSES

QPL
MFR.
DESIG.

FSCM
No.

DATA
MFRS.
CODE

MANUFACTURERS' CODES, NAMES, AND ADDRESSES

	MULB	—	Mullard Ltd., Mullard House, Torrington Pl., London WC1E 7HD, England
	NSC	—	National Semiconductor Corp., 2900 Semiconductor Dr., Santa Clara, Calif. 95051
	PHIN	—	N. V. Philips Gloeilampenfabrieken, Product Div., Elcoma, Bldg. BF, Eindhoven, Netherlands
	PLSB	—	Plessey Semiconductors, Cheney Manor, Swindon, Wiltshire, England
	RAG	—	Ragen Semiconductor, Inc., 53 So. Jefferson Rd., Whippany, New Jersey 07981
CRC — 86684 —	RCA	—	RCA Corporation, Solid State Div., Route 202, Somerville, New Jersey 08876
	RTCF	—	R. T. C. LaRadiotechnique-Compelec, 130, Avenue Ledru-Rollin, 75540 Paris Cedex 11, France
	RTN	—	Raytheon Company, 350 Ellis St., Mountain View, Calif. 94042
	SGAI	—	SGS-ATES Componenti Elettronici S.p.A., Via C. Olivetti 2, 20041 Agrate Brianza, Milan, Italy
	SIC	—	Signetics Corp., 811 E. Arques Ave., Sunnyvale, Calif. 94086
	SIEG	★	Siemens Aktiengesellschaft, Semiconductor Div., Balanstrasse 73, D8000, Munich 8, Germany
	SLTC	★	Siltek International, Ltd., Airport Industrial Park, Bromont, Quebec, Canada JOE 1L0
	SMI	—	Semi, Inc., A Sub. of Electronic Memories & Magnetics Corp., 3883 N. 28th Ave., Phoenix, Arizona 85017
	SOD	—	Solitron Devices, Inc., 8808 Balboa Ave., San Diego, Calif. 92123
CSF — 56289 —	SPR	—	Sprague Electric Co., 115 Northeast Cutoff, Worcester, Mass. 01606
	SSS	—	Solid State Scientific, Inc., Montgomeryville, Pa. 18936
	SST	★	Solid State, Inc., 46 Farrand St., Bloomfield, New Jersey 07003
	SWM	—	Stewart-Warner Microcircuits, Inc., 730 E. Evelyn Ave., Sunnyvale, Calif. 94086
CCAB — 03877 —	TEC	—	Transitron Electronic Corp., 168-182 Albion St., Wakefield, Mass. 01880
	THCF	—	Thomson CSF, Div. Semiconducteurs SESCOSEM, 50 rue Jean Pierre Timbaud, BP 120, 92403 Courbevoie, France
	TII	—	Texas Instruments, Inc., Components Group, P.O. Box 5012, Dallas, Texas 75222
	TRW	—	TRW Monolithic IC, 14520 Aviation Blvd., Lawndale, Calif. 90260
	TSC	—	Teledyne Semiconductor, 1300 Terra Bella Ave., Mountain View, Calif. 94043
	VALG	—	Valvo GmbH, P.O. Box 993, D2000, Hamburg 1, Germany
	WDC	★	Western Digital Corp., 3128 Red Hill Ave., Box 2180, Newport Beach, Calif. 92663
	WLD	—	Wyle Laboratories, Products Div., 133 Center St., El Segundo, Calif. 90245

★ NEW MANUFACTURERS

Manufacturers shown in bold print have local offices, which are included in Section 11 of this D.A.T.A.BOOK

SYMBOLS & CODES

TYPE No. (CROSS-INDEX & TECHNICAL SECTIONS)

- △ Indicators of separate manufacturers producing same type number (non-JEDEC) whose characteristics are not the same.
 # This manufacturer—identifying symbol (assigned by D.A.T.A.) is an integral part of the type number (in Type No. Cross Index, Technical Data Sections) to avoid the possibility of confusing the device of one manufacturer with the devices of the others.

Example...

Type No.	Manufacturer	Description
DD31 △	CCD	Shift Register
DD31 #	CLC	RAM
DD31 ▢	ZEL	ROM

#1, #2... The modifier is designated by D.A.T.A. to distinguish between type no. designations which give only one type no. but have more than one electrical function or package.

⊗: (Sect.4&6) Device requires companion device to complete code; see logic drawing.

- PR... Suffix indicates device is a preliminary type
- RT... Suffix indicates device is a replacement type

LINE No.
▼ — NEW TYPE
◆ — REVISED SPECIFICATION
— MANUFACTURED OUTSIDE U.S.A.

MAX. OPERATING POWER DISSIPATION
†: Typical
*: Minimum
%: Per bit
◆: Quiescent power dissipation
▢: Absolute maximum
⊗: At 25°C

SYMBOLS & CODES COMMON TO ALL TECHNICAL SECTIONS

NOTE: UNLESS OTHERWISE INDICATED, ALL CHARACTERISTICS APPLY OVER THE ENTIRE OPERATING TEMPERATURE RANGE

INPUT LOGIC LEVEL: MAX. '0'
†: Typical
*: Minimum
%: Output (not Input) value given. (This also applies for value given for '1' level).
◆: Bipolar load only; can be adjusted for the MOS load. (Applies for '1' level value, also).
⊗: At 25°C

MINIMUM OUTPUT SINK CURRENT
†: Typical
#: Maximum
⊗: Minimum output source current
◆: Minimum output high current
△: Maximum output leakage current
%: Minimum driving (fanout) current
▢: Absolute max. rated output current
⊗: At 25°C

OUTLINE DRAWINGS
CY: TO-5 type (non-JEDEC)
CH: Chip Package
FL: Flat package (non-JEDEC)
ML: Molded or encapsulated package not included in other categories.
MO: Standard JEDEC outline
PL: Printed circuit board
TO: Standard JEDEC outline
▢: Package style only shown; no dimensions.

LOGIC/BLOCK DRAWINGS
A: RAMs
B: ROMs
C: Character Generators
D: CAMs
E: Code Converters
F: Shift Registers
⊗: Optional Terminal Connections Available; Consult Manufacturer

STRUCTURE CODE		
3-LETTER CODE: X X X		
TECHNOLOGY	TYPE	PROCESS
B: Bipolar	A: Amorphous	A: Aluminum Gate
H: Hybrid	C: Complementary Symmetry (N+P)	C: Conventional
	N: N-Channel	D: Schottky Process
	P: P-Channel	G: Silicon Gate
M: MOS	D: DTL	I: Ion-Implanted
T: Thin film	E: ECL	N: Silicon Nitride
	R: RTL	R: RMOS
	T: TTL	S: Silicon-On-Sapphire
	X: Not Applicable or Not Specified	T: Thick Oxide
		X: Not Applicable or Not Specified
SYMBOLS		
⊗: Mounted on PC board.		
▢: More than one process used; only one is specified.		

OPERATING TEMPERATURE CODE	
0— 0 up to 10°C	▼ USED IN NEGATIVE COLUMN TO INDICATE VALUE IS POSITIVE
1— 10 up to 20°C	EXAMPLES OF OPERATING TEMP. RANGE CODE:
2— 20 up to 30°C	
3— 30 up to 40°C	
4— 40 up to 50°C	
5— 50 up to 60°C	
6— 60 up to 70°C	
7— 70 up to 80°C	
8— 80 up to 90°C	
9— 90 up to 100°C	
A— 100 up to 110°C	
B— 110 up to 120°C	
C— 120 up to 130°C	
D— 130 up to 140°C	
E— 140 up to 150°C	
F— 150 up to 160°C	
G— 160 up to 170°C	
H— 170 up to 180°C	
J— 180 up to 190°C	
K— 190 up to 200°C	

2. READ-WRITE MEMORIES (RAMS)

LINE No.	TYPE No.	ORGANIZATION	2 BITS PER WORD	3 STRUCTURE D CODE	5 MAX ACCESS TIME (s)	MAX WRITE CYCLE TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN	INPUT LOGIC LEVELS	MIN OUTPUT SINK CURRENT	MIN OPER. CLOCK FREQ.	OPER. TEMP. RANGE CODE	DRAWINGS
1	2	3	4	5	6	7	8	9	10	11	12	13	14

⊗: No. of words is variable; types listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type no.
 §: More than one circuit

⊗: No. of bits/word is variable

LETTER
 D: Dynamic
 S: Static

SYMBOL

%: Type can be operated in either mode (dynamic or static) listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type No.
 §: Multifunction circuit; see circuit diagram

†: Typical
 *: Minimum
 ⊗: Propagation delay
 ⊗: At 25°C
 ◆: Other than 25°C

†: Typical
 *: Minimum
 ⊗: Min. write-pulse width
 △: Max. read-write cycle time
 ⊗: At 25°C
 %: Sum of min. write-pulse width and max. write-pulse delay time.

⊗: V_{in}

#: Absolute max.

†: Typical

#: Maximum

⊗: Three-state device

NOTE: This column applies for dynamic (not static) devices.

SEE SYMBOLS AND CODES COMMON TO ALL TECHNICAL SECTIONS

TYPE NO. SYMBOLS AND CODES AT TOP OF CARD
 SM 1

SYMBOLS & CODES

3. READ ONLY MEMORIES (ROMS)

LINE No.	TYPE No.	ORGANIZATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000	1001	1002	1003	1004	1005	1006	1007	1008	1009	1010	1011	1012	1013	1014	1015	1016	1017	1018	1019	1020	1021	1022	1023	1024	1025	1026	1027	1028	1029	1030	1031	1032	1033	1034	1035	1036	1037	1038	1039	1040	1041	1042	1043	1044	1045	1046	1047	1048	1049	1050	1051	1052	1053	1054	1055	1056	1057	1058	1059	1060	1061	1062	1063	1064	1065	1066	1067	1068	1069	1070	1071	1072	1073	1074	1075	1076	1077	1078	1079	1080	1081	1082	1083	1084	1085	1086	1087	1088	1089	1090	1091	1092	1093	1094	1095	1096	1097	1098	1099	1100	1101	1102	1103	1104	1105	1106	1107	1108	1109	1110	1111	1112	1113	1114	1115	1116	1117	1118	1119	1120	1121	1122	1123	1124	1125	1126	1127	1128	1129	1130	1131	1132	1133	1134	1135	1136	1137	1138	1139	1140	1141	1142	1143	1144	1145	1146	1147	1148	1149	1150	1151	1152	1153	1154	1155	1156	1157	1158	1159	1160	1161	1162	1163	1164	1165	1166	1167	1168	1169	1170	1171	1172	1173	1174	1175	1176	1177	1178	1179	1180	1181	1182	1183	1184	1185	1186	1187	1188	1189	1190	1191	1192	1193	1194	1195	1196	1197	1198	1199	1200	1201	1202	1203	1204	1205	1206	1207	1208	1209	1210	1211	1212	1213	1214	1215	1216	1217	1218	1219	1220	1221	1222	1223	1224	1225	1226	1227	1228	1229	1230	1231	1232	1233	1234	1235	1236	1237	1238	1239	1240	1241	1242	1243	1244	1245	1246	1247	1248	1249	1250	1251	1252	1253	1254	1255	1256	1257	1258	1259	1260	1261	1262	1263	1264	1265	1266	1267	1268	1269	1270	1271	1272	1273	1274	1275	1276	1277	1278	1279	1280	1281	1282	1283	1284	1285	1286	1287	1288	1289	1290	1291	1292	1293	1294	1295	1296	1297	1298	1299	1300	1301	1302	1303	1304	1305	1306	1307	1308	1309	1310	1311	1312	1313	1314	1315	1316	1317	1318	1319	1320	1321	1322	1323	1324	1325	1326	1327	1328	1329	1330	1331	1332	1333	1334	1335	1336	1337	1338	1339	1340	1341	1342	1343	1344	1345	1346	1347	1348	1349	1350	1351	1352	1353	1354	1355	1356	1357	1358	1359	1360	1361	1362	1363	1364	1365	1366	1367	1368	1369	1370	1371	1372	1373	1374	1375	1376	1377	1378	1379	1380	1381	1382	1383	1384	1385	1386	1387	1388	1389	1390	1391	1392	1393	1394	1395	1396	1397	1398	1399	1400	1401	1402	1403	1404	1405	1406	1407	1408	1409	1410	1411	1412	1413	1414	1415	1416	1417	1418	1419	1420	1421	1422	1423	1424	1425	1426	1427	1428	1429	1430	1431	1432	1433	1434	1435	1436	1437	1438	1439	1440	1441	1442	1443	1444	1445	1446	1447	1448	1449	1450	1451	1452	1453	1454	1455	1456	1457	1458	1459	1460	1461	1462	1463	1464	1465	1466	1467	1468	1469	1470	1471	1472	1473	1474	1475	1476	1477	1478	1479	1480	1481	1482	1
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SYMBOLS & CODES COMMON TO ALL TECHNICAL SECTIONS

LINE No.
▼ - NEW TYPE
◆ - REVISED SPECIFICATION
- MANUFACTURED OUTSIDE U.S.A.

NOTE: UNLESS OTHERWISE INDICATED, ALL CHARACTERISTICS APPLY OVER THE ENTIRE OPERATING TEMPERATURE RANGE.

MAX. OPERATING POWER DISSIPATION
† : Typical
* : Minimum
% : Per bit
◇ : Quiescent power dissipation given for 2nd & 3rd letters of code)
◻ : Absolute maximum
∅ : At 25°C

INPUT LOGIC LEVEL: MAX. '0'
† : Typical
* : Minimum
% : Output (not Input) value given. (This also applies for value given for '1' level).
◇ : Bipolar load only; can be adjusted for the MOS load. (Applies for '1' level value, also).
∅ : At 25°C

MINIMUM OUTPUT SINK CURRENT
† : Typical
: Maximum
\$: Minimum output source current
◇ : Minimum output high current
△ : Maximum output leakage current
% : Minimum driving (fanout) current
◻ : Absolute max. rated output current
∅ : At 25°C

OUTLINE DRAWINGS
CY: TO-5 type (non-JEDEC)
CH: Chip Package
FL: Flat package (non-JEDEC)
ML: Molded or encapsulated package not included in other categories.
MO: Standard JEDEC outline
PL: Printed circuit board
TO: Standard JEDEC outline
◻ : Package style only shown; no dimensions.

LOGIC/BLOCK DRAWINGS
A: RAMs
B: ROMs
C: Character Generators
D: CAMs
E: Code Converters
F: Shift Registers
\$: Optional Terminal Connections Available; Consult Manufacturer

STRUCTURE CODE		
3-LETTER CODE: X X X		
TECHNOLOGY	TYPE	PROCESS
B: Bipolar	A: Amorphous	A: Aluminum Gate
H: Hybrid	C: Complementary Symmetry (N+P)	C: Conventional
i.e., Bipolar/MOS (MOS characteristics given for 2nd & 3rd letters of code)	N: N-Channel	D: Schottky Process
M: MOS	P: P-Channel	G: Silicon Gate
T: Thin film	D: DTL	I: Ion-Implanted
	E: ECL	N: Silicon Nitride
	R: RTL	R: RMOS
	T: TTL	S: Silicon-On-Sapphire
	X: Not Applicable or Not Specified	T: Thick Oxide
		X: Not Applicable or Not Specified
SYMBOLS		
∅ : Mounted on PC board.		
◻ : More than one process used; only one is specified.		

OPERATING TEMPERATURE CODE	
0- 0 up to 10°C	▼ - USED IN NEGATIVE COLUMN TO INDICATE VALUE IS POSITIVE
1- 10 up to 20°C	EXAMPLES OF OPERATING TEMP. RANGE CODE:
2- 20 up to 30°C	
3- 30 up to 40°C	
4- 40 up to 50°C	
5- 50 up to 60°C	
6- 60 up to 70°C	
7- 70 up to 80°C	
8- 80 up to 90°C	
9- 90 up to 100°C	
A-100 up to 110°C	
B-110 up to 120°C	
C-120 up to 130°C	
D-130 up to 140°C	
E-140 up to 150°C	
F-150 up to 160°C	
G-160 up to 170°C	
H-170 up to 180°C	
J-180 up to 190°C	
K-190 up to 200°C	

5. CONTENT ADDRESSABLE MEMORIES (CAMs)

IN ORDER OF (1) No. WORDS (2) No. BITS/WORD (3) MODE (4) STRUCT. (5) MAX. SEARCH TIME (6) TYPE No.

40100-1 (10-1) MAX. SEARCH TIME (1) TYPE NO.															
LINE No.	TYPE No.	ORGANIZATION		3	4	5	MAX. WRITE CYCLE TIME (s.)	MAX. OPER. POWER DISS. (W.)	RATED POWER SUP. SPAN (V.)	INPUT LOGIC LEVELS		MIN. OUTPUT SINK CURRENT (A.)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1	2							MAX. '0' (V.)	MAX. '1' (V.)			LOGIC/BLOCK	OUTLINE
		No. WORDS	BITS PER WORD	STRUCTURE CODE	MAX. SEARCH TIME (s.)	MAX. ACCESS TIME (s.)			NEG. POS. (V.) (V.)	'0' '1' (V.) (V.)		@ OUT (V.)			

\$: No. of words is variable; types listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type no.
§ : More than one circuit

\$: No. of bits/word is variable.

LETTER
D: Dynamic
S: Static

SYMBOL

% : Type can be operated in either mode (dynamic or static); listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type No.

† : Typical
* : Minimum
\$: Propagation delay
∅ : At 25°C
◇ : Other than 25°C

† : Typical
* : Minimum
∅ : At 25°C

† : Typical
* : Minimum
\$: Minimum write-pulse width
§ : Write/read time
∅ : At 25°C

† : Typical
: Maximum
§ : Three-state device

: Absolute Max.

• SEE SYMBOLS AND CODES COMMON TO ALL TECHNICAL SECTIONS

▼ TYPE NO. SYMBOLS AND CODES AT TOP OF FIRST INTERPRETER CARD

SYMBOLS & CODES

6. CODE CONVERTERS

6. CODE CONVERTERS

IN ORDER OF (1) FROM CODE (2) TO CODE (3) No. WORDS (4) No. INPUT BITS (5) No. OUTPUT BITS (6) TYPE No.

LINE No.	TYPE No.	CONVERSION CODE		No. WORDS	No. CODE BITS		MOD	STRUCTURE CODE	MAX ACCESS TIME (s)	MAX OPER. POWER DISS. (W)	RATED POWER SUP. SPAN		INPUT LOGIC LEVELS		MIN OUTPUT SINK CURRENT (A)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1	2		4	5					NEG. (V)	POS. (V)	MAX '0' (V)	MIN '1' (V)			LOGIC/BLOCK	OUTLINE

NUMBER:
 1: USASCII 6: Hollerith
 2: EBCDIC 7: 96-Column
 3: Selectric 8: Key Encoded
 4: BCD 9: Custom
 5: Binary 10: Baudot
SYMBOL: ('From' Column)
 % 'From-To' code is reversible; listed on separate lines with D.A.T.A. modifier (#1, #2, etc.) added to type number.

LETTER
 D: Dynamic
 S: Static

SYMBOL
 %: Type can be operated in either mode (dynamic or static); listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type No.

\$: No. of words is variable; types listed on separate lines with D.A.T.A. modifiers (#1, #2, etc.) added to type no.
 §: More than one circuit
 ♦: No. of words per separate code conversion

▣ : Includes even parity bit
 ⊗ : Includes odd parity bit
 § : Includes both odd and even parity bits

† : Typical
 * : Minimum
 \$: Propagation delay
 Δ : Cycle time
 ∅ : At 25° C
 ♦ : Other than 25° C
 % : Key bounce delay

† : Typical
 # : Maximum
 § : Three-state device

• SEE SYMBOLS AND CODES COMMON TO ALL TECHNICAL SECTIONS

7. SHIFT REGISTERS

7. SHIFT REGISTERS

IN ORDER OF (1) No. BITS/REG (2) No. REGS (3) OPER. CODE (4) MAX. WORST CASE FREQ. (5) STRUCTURE (6) TYPE No.

LINE No.	TYPE No.	ORGANIZATION		MAX. WORST CASE FREQ. (Hz)	STRUCTURE CODE	MAX. OPER. POWER DISS. (W)	RATED POWER SUP. SPAN	INPUT LOGIC LEVELS		MAX. PROP. DELAY (s)	MIN. OUTPUT SINK CURRENT (A)	MIN. CLOCK FREQ. (Hz)	OPER. TEMP. RANGE CODE	DRAWINGS	
		1. BITS PER REGISTER	2. No. REGS					3. OPER. CODE	4. MAX. WORST CASE FREQ. (Hz)					5. STRUCTURE CODE	6. TYPE No.
1	1	1	2	3	4	5	6	7	8	9	10	11	12	13	14

No. of bits/register made variable by internal gating. Individual registers contain different numbers of bits; max. no. is specified (see schematic). Accumulator

No. of bits/register made variable by custom programming; max. no. is specified

† : Typical
 * : Minimum
 Δ : Max. clock rate
 % : Max. toggle freq.
 ∅ : At 25° C
 □ : Data repetition rate

† : Typical
 # : Maximum
 § : Three-state device

† : Typical
 # : Maximum
 Δ : Max. refresh time (inverted)
 ∅ : At 25° C

NOTE: This column applies for dynamic (not static) devices.

§ : Separate input is made available for connection to intermediate stages.

3-LETTER CODE: X X X

INPUT	OUTPUT	OPERATING MODE
P: Parallel S: Series	P: Parallel S: Series	D: Dynamic S: Static

† : Typical
 * : Minimum
 Δ : Transition time
 § : Average propagation delay
 ∅ : At 25° C

SYMBOLS AND CODES COMMON TO ALL TECHNICAL SECTIONS

NO. SYMBOLS AND CODES AT TOP OF FIRST INTERPRETER CARD

SYMBOLS

\$: Chip contains associated circuitry.
 § : Multifunction circuit; application depends on external connections.
 % : Type can be used in either dynamic or static mode; listed on separate lines with D.A.T.A. modifiers (# 1, 2, etc.) added to type no. (see Cross-Index).

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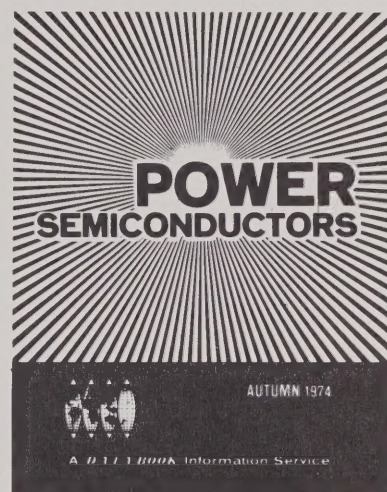
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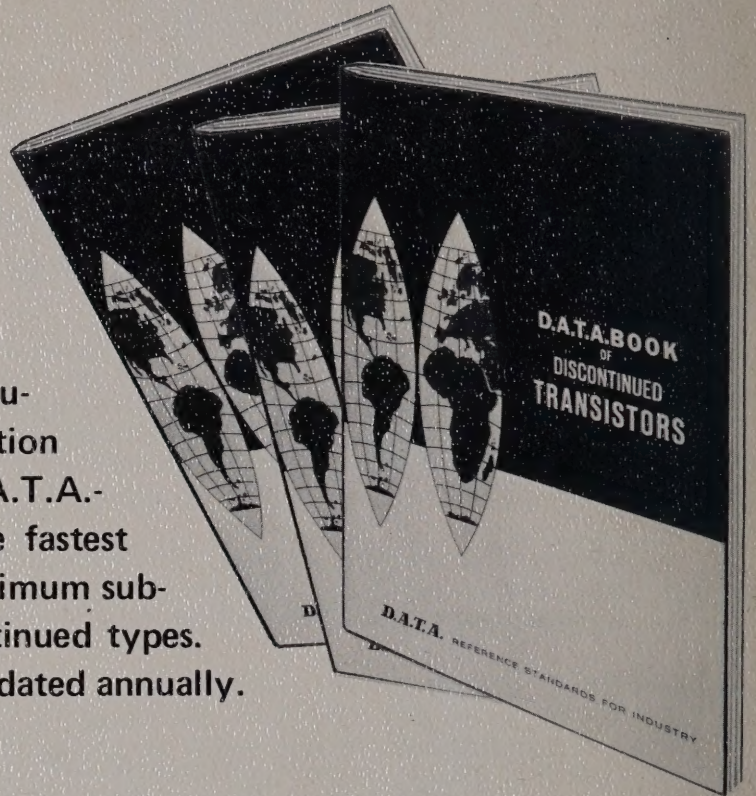
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